

## CONTENTS

No.		Page
I.	<b>Editorial</b>	<b>V</b>
01	Deciding world's best t20 cricket squad by using analytical Hierarchy Process (AHP) <b>Dr. Kinchit P Shah, Dr. Ankur Amin</b>	<b>1</b>
02	Liquidity of Commercial Banks in India: Pre and Post Crisis Analysis <b>Dr. Shradha H Budhedeo</b>	<b>12</b>
03	A Study on Impact of Life Style Orientation for Online Shopping Continuance <b>Mr. Bhavesh Solanki, Dr. Raju Rathod</b>	<b>20</b>
04	An Empirical Study on Present Status and SWOT Analysis of Goods and Services Tax in India <b>Dr. Khyati Jagatkumar Patel</b>	<b>31</b>
05	An Impact of Capital Structure on Profitability of Selected Hotel Chains in India <b>Ms. Priti Makhecha, Dr. Kamini Shah</b>	<b>37</b>
06	Analysis of the Awareness, Behavior and Perception of the Banking Customers about the Cyber Security <b>Dr. Manish B Raval, Dr. Ashish B Gorvadiya</b>	<b>46</b>
07	Organizational Performance Improvement with Value Chain Analysis in Food and Beverage Industry in Gujarat State : From Managerial Prospective <b>Mr. B Hariharan</b>	<b>52</b>
08	A Role of Modern Pedagogy With Innovative Strategies <b>Ms. Pratibha R Chaudhary</b>	<b>56</b>
09	Banking in the Digital Age: Opportunities and Challenges <b>Mr. Mehul J Mistry, Dr. Vashishthadhar J Dwivedi</b>	<b>59</b>
10	Measuring Public Awareness towards Goods and Services Tax (GST): An Empirical Study in Sabarkantha of North Gujarat Region <b>Dr. Rina Dave, Mr. Shabbirali S Thavara</b>	<b>68</b>
11	IFRS Implementation and Financial Reporting Quality: Review of Evidences from ASEAN Countries <b>Dr. Juao C. Costa, Ms.Lorraine Rayelle Gomes</b>	<b>72</b>
12	Impact of Macroeconomic Indicators on Foreign Exchange Rate in India <b>Dr. Ramakanta Prusty, Dr. Jayesh J. Tanna, Ms. Janki A Dave</b>	<b>79</b>
13	Non Performing Assets: A Termite for the Growth of Banks <b>Ms. Pratiksha N Parekh, Dr. Kamini Shah ,Dr. Sandip Bhatt</b>	<b>84</b>
14	Understanding of Green Marketing among Future Managers: An Empirical Analysis <b>Dr. Hitesh D. Vyas</b>	<b>95</b>
15	Defence Forces and the growth of Indian Economy <b>Mr. Beji Mathews</b>	<b>100</b>

# SEMCOM Management & Technology Review

**Copyright:** The copyright of the articles that are accepted for publication and finally published is to be given to SMTR. Moreover authors are required to declare that the copyright requirements of material used directly or indirectly in the article are accordingly fulfilled. SMTR reserves the copyright and holds the right to use and disseminate the material in any form or medium, i.e. print or electronic. The published article cannot be reproduced, photocopied or used for commercial purpose except with prior permission.

© SGM English Medium College of Commerce and Management

Subscription:

Single Copy ₹ 750.

Term	For Institution	For Individual
One Year	₹ 500	₹ 750

**Mode of payment:**

The Demand Draft should be drawn in favour of SEMCOM, Payable at Vallabh Vidyanagar.

**Reprints:**

All the published papers of the journal are available on institute website. For reprints of paper/article and permission please call: 02692-235624.

**Disclaimer:**

Opinions expressed in this journal do not reflect the policies or views of SEMCOM, but of the individual contributor. Neither SMTR nor SEMCOM is responsible for a case where author has not acknowledged or unintentionally omitted the source material. The authors are solely responsible for the details and statements in their research papers. All disputes are subject to Anand Jurisdiction only.

**Please contact at the following address:**

SEMCOM (S G M English Medium College of Commerce and Management) Opp. Shastri Maidan, Vallabh

Vidyanagar — 388 120

Dist: Anand, Gujarat, India

Ph. No: 91-02692-235624

**Correspondence may preferably be done through E-mail.**

Send your contribution to: [smtr@semcom.ac.in](mailto:smtr@semcom.ac.in)

# **SEMCOM** Management & Technology Review

March 2020

ISSN-2321-5968

Volume - 7 Issue - 2

Bi-Annual – International Peer Reviewed Research Journal

*CHIEF EDITOR*

Dr. Waheeda Thomas, Principal  
SEMCOM, Vallabh Vidyanagar, Gujarat, India

## Editorial Board

<b>Editor – in- Chief</b>	Dr. Waheeda Thomas
<b>Editor</b>	Dr. Nishrin Pathan, Business Communication
<b>Associate Editors</b>	Dr. Nehal Daulatjada, Computer Science
	Dr. Preethi Luhana, Marketing Management
	Dr. Yashashvi Rajpara, Accountancy
	Dr. Bharat Tarapara, Quantitative Techniques
<b>Technical editor</b>	Dr. Jay Nanavati, Computer Science
<b>Technical support</b>	Ms. Reshma Pathak

## Advisory Board

Dr. Parimal H Vyas, Vice Chancellor, M S University, Vadodara	Mr. G Narayana (Guruji) Chairman Emeritus, Excel Industries, Mumbai
Dr. Shailesh Gandhi, Professor, Indian Institute of Management, Ahmedabad	Dr. Vijay Sethi, Professor, Nanyang Business School, Singapore
Prof. (Dr.). Arvind C Shah, Professor, Department of Computer Science, Georgia South Western State University, USA	Dr. Jayraj Jadeja, Vice Chancellor, Krantiguru Shyamji Krishna Verma Kachchh University, Bhuj
Prof. Ajaykumar Singh, Vice Chancellor, Sri Sri University, Cuttack, Odisha	Dr. Bhadrayu Vachhrajani, Director (Education), Adani Foundation, Ahmedabad.
Shri Lalbhai P. Patel, National Council Member, Indian Institute of Materials Management, Vadodara	Mr. Hiren Vakil, Management Trainer & Consultant, Mumbai
Mr. Nevil Agarwal, Director, RankUno, Pune	Mr. Arnab Chakraborty, Founder-Director, UN's Capacity Building Programme, Empretec, Kolkata

## SECOM Journal Details (UGC – CARE List)

<b>Journal Title (in English Language)</b>	SECOM Management and Technology Review
<b>Publication Language</b>	English
<b>Publisher</b>	Sardar Gunj Mercantile English Medium College of Commerce and Management
<b>ISSN</b>	2321-5968
<b>E-ISSN</b>	NA
<b>Discipline</b>	Social Science
<b>Subject</b>	Business, Management and Accounting (all)
<b>Focus Subject</b>	Business, Management and Accounting (miscellaneous)
<b>UGC-CARE List Group</b>	Group B

**Source:** <https://ugccareunipune.ac.in/Apps1/User/User/ViewDetails?JournalId=101001105&flag=Search>



Dear Readers!!

Hope you all are safe and coping with this unprecedented challenge of COVID 19 with great humane spirit. I am sure you would agree that this phase has given us more opportunities to introspect and be more insightful. We, as academicians have also got new direction which academic world may take. Amidst all these, there is huge scope for visualizing and designing newer ways of engaging students. This shift will call for research activities, experiments, testing and authentication. Let's gear up for new horizons an academic world has headed to. We are pleased to present before you 2<sup>nd</sup> issue of Volume 7 of SMTR, March 2020.

In the area of Management, this issue has two articles on organizational performance with value chain analysis and a case study on using analytical hierarchy process for better managerial decisions. Finance is lifeline of a business. This issue deliberates two researches on an impact of capital structure on profitability of selected hotel chains in India. It aims at examining the effect of capital structure on profitability of leading hotel chains of India and tries to find out how debt-equity structure of these hotels plays a vital role in overall development of this huge investment requiring service sector. IFRS implementation and financial reporting quality is a review of evidences from ASEAN countries. Emergence of the International Financial Reporting Standards (IFRS) has been one of the largest phenomena in the area of accounting and financial reporting. It has given rise to in-depth discussions among stakeholders and academicians on the benefits as well as consequences of IFRS adoption on economies. This research will pave ways to those who aspire to implement IFRS. Banking is another crucial factor of Indian economy. The issue presents research thoughts on how banking, in the digital age, poses opportunities and challenges and how non-performing assets have proven to be termites that eat away growth of banks. A study on pre and post crisis analysis on liquidity of commercial banks in India reveals that private sector bank group and foreign bank group have maintained higher capital adequacy ratio in the post crisis period while public sector bank group reveals no significant difference. Another paper analyses the awareness, behavior and perception of the banking customers about the cyber security. This is important these days as the banking industry is exposed to a large number of cyber-attacks on the data privacy and security. GST has still remained an issue of great inquisitiveness for many. The issue discusses revelations of two empirical studies on status and SWOT of GST in India and Public awareness towards GST in selected regions. A study on impact of microeconomic indicators on foreign exchange rates concludes that the overall exchange rate is significantly co-related with certain economic indicators which are forming the base of volatility in the market. In the area of marketing two research papers examine the impact of lifestyle orientation on online shopping and understanding of green marketing among future managers. In our pursuits to enhance quality education we ensure more research on innovative pedagogy. The issue offers a solution by focusing on a role of modern pedagogy with innovative strategies that will help enhance teaching learning process.

We hope you will enjoy reflecting on the researches presented herewith. We invite you to contribute to this journal more through your qualitative research work.

Best wishes,  
Waheeda Thomas



## About SEMCOM

Sardar Gunj Mercantile Cooperative Bank Ltd. (Anand) English Medium College of Commerce and Management (S G M English Medium College of Commerce and Management) popularly known as SEMCOM was established in the year 1997 with the aim/vision to impart quality education to students who desire to graduate in commerce, management and IT. The college has successfully completed 18 years. Its alumni have established themselves in various walks of life across the globe. The college has been established by Charutar Vidya Mandal (CVM), an educational trust with a vision to regenerate society through education. SEMCOM was set up with the generous donation of Rs. 35 lakhs against the total project cost of Rs. 150 lakhs by Sardar Gunj Cooperative Bank Ltd. (Anand) on self- finance basis keeping in mind the changing policy of the government in inviting private institutions to supplement the government's efforts in higher education. The college has an ISO Quality System since 2004, which upgraded to 9001:2008 in September 2009. The college is re-accredited grade "A" by NAAC with a CGPA of 3.01 on 4 point scale. The college, within a short span of time has made its presence felt in India and abroad.

### Objectives / Goals

- ◆ To focus on integral development of students.
- ◆ To offer courses and programs in tune with changing trends in the society as a whole.
- ◆ To update the curriculum as per the need of the business and industry.
- ◆ To create unique identity in the educational world at the national as well as international level.
- ◆ To institutionalize quality in imparting education.
- ◆ To incorporate innovations on a continuous basis in the entire process of education at institutional level.
- ◆ To create platform for the students for exhibiting their talent and for development of their potentials.
- ◆ To generate stimulating environment for students as well as teachers.
- ◆ To build cutting edge amongst the students to withstand and grow in the competitive environment at the global level



# DECIDING WORLD'S BEST T20 CRICKET SQUAD BY USING ANALYTICAL HIERARCHY PROCESS (AHP)

Dr. Kinchit P. Shah, Dr. Ankur D. Amin

## Abstract

*Today, Cricket is one of the most popular sports around the world. T20 cricket is the most popular entertaining game in last eight to ten years among different formats of cricket. Cricket squad should be progressively adaptable, adjusted and differentiated. Finest team changes with the change in different attributes for selecting the best team players. The Analytic Hierarchy Process (AHP) is generally utilized by decision makers. This paper focuses on deciding a squad with 5 different attributes of a player to select a cricket team for T20. The data has been collected from ICC 2019 ranking for T20 on the basis of their various attributes. The objective of this paper is to prepare and examines priority given for selecting world's best T20 cricket squad. The Analytic Hierarchy Process (AHP) Techniques is used based on different attributes of players to select world's best T20.*

**Keyword:** Analytic Hierarchy Process (AHP), cricket, T20.

## INTRODUCTION

The game of cricket is like a religion. People are fascinated with this game like anything. Twenty20 Cricket additionally called T20, abbreviated type of Cricket that upset the game when it was presented in 2003 with principle changes that put a premium on hitting and scoring, increasing another crowd for cricket. In a brief timeframe, T20 turned into the most prevalent and useful type of cricket. In World cricket, International Cricket Council (ICC) is the chief body which selects the World Best Cricket Player as World XI Team and the selection is done by a panel of experts coming from various regions worldwide and is headed by a chief selector, deputed by ICC (Gerber & Sharp, 2006).

In a T20 cricket, every player who is batsman, bowler, wicketkeeper, fielder and all-rounder has his prominent place based on their skills. It is difficult to select a T20 cricket team which has a balance of all categories of players. We have used AHP to finalise the T20 cricket based on five attributes.

Analytic Hierarchy Process (AHP) proposed by Satty, is an approach for decision making that involves structuring multiple choice criteria into a hierarchy, assessing the relative importance of these criteria, comparing alternatives for each criterion, and determining an overall ranking of the alternatives on the basis of measures. The output of the AHP is prioritized positioning demonstrating the general inclination for every one of the choice which is ultimately help the decision maker to select the best approach. This Study adopts AHP as the method for obtaining the weight relationship and degree of importance of different assessment criteria (Venkata Rao, 2004). It Introduced the Fuzzy theory into the AHP developed by (Satty, 1980) to assess the weight of various attributes, by which more objective could be stimulated. This Analytical Process merges the concepts of several scholars, including (Buckley, 1985), (Kamble, Venkata Rao, Kale, & Samant, 2011) and (Vargas, 1990). AHP is one of the fundamental mathematical models currently available to carry the decision theory (Jayakumar, Raju, Marriappan, & Ravivikram, 2010).

## LITERATURE REVIEW

**Mark Lourens (2009)** have demonstrate a research thesis entitled on Integer Optimization for the Selection of Twenty20 Cricket Team, research has been on the game of cricket, and the comparison, or ranking, of players according to their abilities and study continues preceding research using an optimization approach by used a binary integer programme, to select an SA domestic Pro20 cricket team.

**Kamble A. G., R. Venkata Rao, Kale A. V., Samant S. P (2011)** have observe the research paper on Selection of Cricket Players Using

Analytical Hierarchy Process concludes with selection of suitable cricket players from amongst large number of available players for a cricket game. The methodology is capable of taking into account important requirements of game and it strengthens the existing procedure by proposing a logical and rational method of cricket player evaluation and selection.

**E. Ozceylan (2016)** has examines the research paper on A Mathematical Model using AHP Priority for Soccer Player Selection: A Case Study using the characteristic of each player – based on their place within a soccer team – is prioritized using the AHP. In the second phase, a 0-1 integer linear programming model is developed using the weights of player attributes, and the top performers are determined for inclusion in the team.

### OBJECTIVES

The research has focused on the following objectives:

1. To study the attributes practiced for selecting World's Best T20 Squad.
2. To assess the priority for Player's Attribute for selecting World's Best T20 Squad.

### HYPOTHETICAL CASE APPLICATION

In this section a detailed hypothetical example of how AHP can be used to decide a squad for World's Best T20 with reference to player's attributes.

### BUILDING THE AHP MODEL

To make a decision for selection of players for T20 cricket squad by generating priorities, we need to

crumble the decision into the following objectives:

1. Define the attributes to determine the requirement of players in squad.
2. Structure the Decision Hierarchy from the Top with the Goal of the Decision, then the objectives through the Attributes on which subsequent elements depend on the set of the alternatives.
3. Construct a set of pair-wise comparison matrices. Each element in an upper level is used to compare the elements in the level immediately below with respect to it.
4. Use the Priority obtained from the comparisons to weigh the priorities in the level immediately below. Do this for every element.

### RESEARCH METHODOLOGY

The challenging part of this research study has to construct an AHP model. Which includes deciding World's Best T20 Cricket Squad of fifteen players and gives priority based on five attributes of Cricket. These five Attributes are batsman, bowler, all rounder, wicket keeper and fielder. For the Study, Top Six Players from each attributes have been selected as per ICC 2019 Rankings. AHP model has been designed using these Five Attributes and 30 Players.

### MULTI CRITERIA DECISION MAKING

The values are number within any certain range; say from 1 to 10 or -5 to 5. Higher value indicates higher level of the factor or preferable values.

**Table 1.1** exhibits the scale.

**Table 1.1: Scales for Pair-Wise Comparison**

Preferences Expressed in Numeric Variables	Preferences Expressed in Linguistic Variables
<b>1</b>	Equal Importance
<b>3</b>	Moderate Importance
<b>5</b>	Strong Importance
<b>7</b>	Very Strong Importance
<b>9</b>	Extreme Importance
<b>2,4,6,8</b>	Intermediate Values between Adjacent Scale Values

**Source:** (Satty, 1980)



## PAIR WISE COMPARASION

Now take into consideration the Paired Comparison which is simpler to understand the values of significant criteria and its sub-criteria, which criteria is most significant than the other and how much it affects *in comparison* with each other.

### CI Formula

$$CI = \frac{\lambda_{\max} - n}{n - 1}$$

## PRIORITY VECTORS

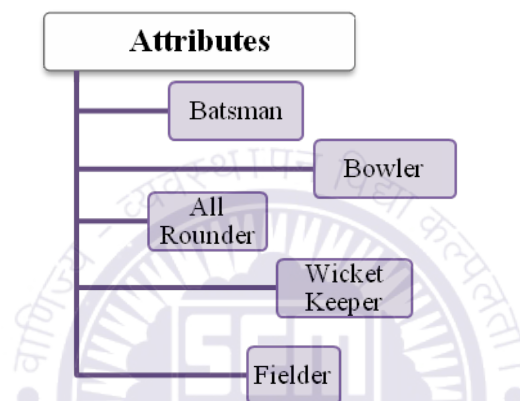
Having a Comparison Matrix, would like to calculate Priority Vector, which is the normalized Eigen Vector of the Matrix, which is found with following Steps.

### CR Formula

$$CR = \frac{CI}{RI}$$

**Table 1.2: Random Consistency Index Table (RI)**

N	1	2	3	4	5	6	7	8	9	10
RI	0	0	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49



**Figure 1.1: Attributes of Players**

After the Hierarchy has been perceived, the Attribute must be evaluated in pairs so as to determine the relative importance between them and their Relative Weight to the Global Goal. The Evaluation begins by determining the Relative Weight of the

initial criteria groups of Attributes of Players (**Figure 1.1**). **Table 1.3** shows the Relative Weight data between the attribute that have been determined by Respondents. (Ozceylan, 2016)

**Comparison for Attributes for Selection of Squad for Best Cricket Team for T20 Match**

Attributes	Batsman	Bowler	All Rounder	Wicket Keeper	Fielder
Batsman	1	3	4	5	6
Bowler	0.33333333	1	3	4	7
All Rounder	0.25	0.33333333	1	3	4
Wicket Keeper	0.2	0.25	0.33333333	1	3
Fielder	0.16666667	0.14285714	0.25	0.33333333	1

**Table 1.3: Comparison for Player's Attribute for Selection of Squad**

Attributes	Batsman	Bowler	All Rounder	Wicket Keeper	Fielder
Batsman	0.5128	0.6348	0.4660	0.3750	0.2857
Bowler	0.1709	0.2116	0.3495	0.3000	0.3333
All Rounder	0.1282	0.0705	0.1165	0.2250	0.1905
Wicket Keeper	0.1026	0.0529	0.0388	0.0750	0.1429
Fielder	0.0855	0.0302	0.0291	0.0250	0.0476

Attributes	Batsman	Bowler	All Rounder	Wicket Keeper	Fielder
Batsman	0.4549				
Bowler		0.2731			
All Rounder			0.1461		
Wicket Keeper				0.0824	
Fielder					0.0435

Table 1.4: Player's Attribute for Selection of Squad for Eigen Vector Value

Eigen Vector	0.45	0.27	0.15	0.08	0.04
Sum	1.95	4.73	8.58	13.33	21.00
1 * 2	0.89	1.29	1.25	1.10	0.91
Eigen Value max $\lambda$	5.4440				

Table 1.5: Player's Attribute for Selection of Squad for Eigen Vector Value max  $\lambda$

The Next Step is to look for any data inconsistencies. The Objective is to capture enough information to determine whether the selectors have been consistent in their choices (Triantaphyllou & Manns, 1995)

(Triantaphyllou, 2002). It is stated that respondents give more importance to Fielders, than pursue by Wicket Keeper, All-Rounder are imperative than Bowler followed by Batsman.

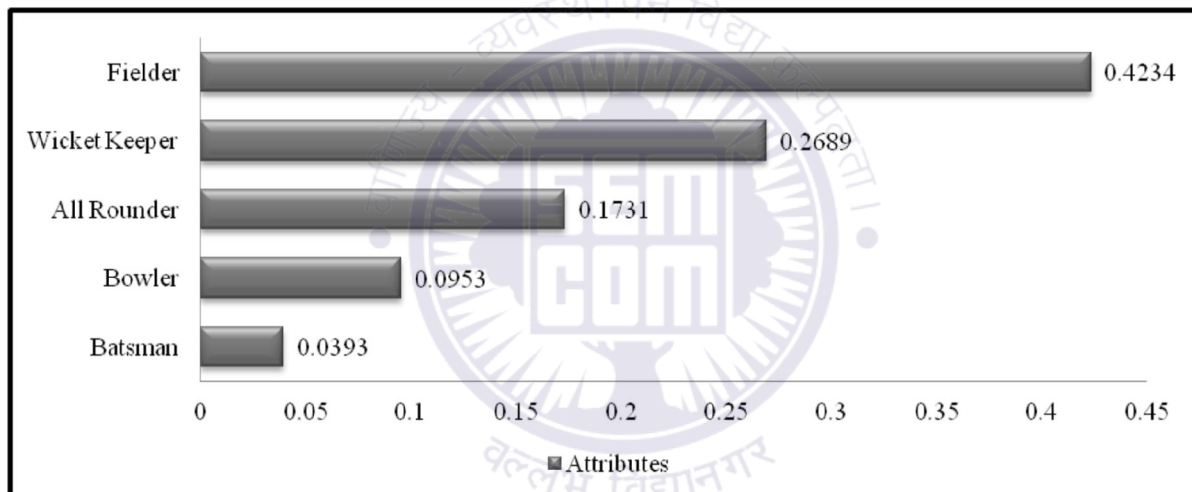


Figure 1.2: Result of Player's Attribute for Selection of Squad

Just like it was done with the Attributes of Cricket Players, it is necessary to evaluate the Various Cricketers with their Relative Weights for the Second Level of the Hierarchy (Chart 1.1).

Chart 1.1: Hierarchy of Player's Name for Selection of Squad



Source: ([www.icc-cricket.com/rankings/mens](http://www.icc-cricket.com/rankings/mens), 2019)

The following table shows the Comparison Matrix for the Attributes for respective Players with the Pair-Wise Comparisons already taken by the respondents.

Attributes																																		
Player's Name		Batsman					Bowler					All Rounder					Wicket Keeper						Fielder											
		Babar Azam	G.J. Maxwell	C. Munro	V. Kohli	R.G. Sharma	A.J. Finch	Rashid Khan	Imad Wasim	A.U. Rashid	Zampa	Sakib Al Hasan	I.S. Sodhi	Mohd. Nabi	S.C. Williams	K.J. O'Brien	J.P. Duminy	R. Jadeja	Perera	M.S. Dhoni	Quinton de Kock	Alex Carey	B.B. McCullum	Musfiqur Rahim	Sahi Hope	S. Raina	K. Pollard	V. Kohli	Faf Du Plessis	D. Bravo	AB De Villiers			
Batsman	Babar Azam	1	5	4	7	3	2																											
	G.J. Maxwell	0.2	1	3	5	2	2																											
	C. Munro	0.25	0.333	1	2	1	1																											
	V. Kohli	0.143	0.2	0.5	1	0.5	0.25																											
	R.G. Sharma	0.333	0.5	1	0.4	1	0.2																											
Bowler	A.J. Finch	0.5	0.5	1	0.8	5	1																											
	Rashid Khan							1	4	5	9	8	2																					
	Imad Wasim							0.25	1	4	4	4	0.25																					
	A.U. Rashid							0.2	0.25	1	2	1	0.167																					
	Zampa							0.111	0.25	0.5	1	4	0.143																					
All Rounder	Sakib Al Hasan							0.125	0.25	1	0.05	1	0.111																					
	I.S. Sodhi							0.5	4	6	1.4	9	1																					
	Mohd. Nabi													1	3	4	7	8	9															
	S.C. Williams													0.333	1	1	2	3	4															
	K.J. O'Brien													0.25	1	1	2	5	5															
Wicket Keeper	J.P. Duminy													0.143	0.5	0.5	1	4	5															
	R. Jadeja													0.125	0.333	0.2	0.05	1	4															
	Perera													0.111	0.25	0.2	0.04	0.25	1															
	M.S. Dhoni																			1	0.167	0.13	0.143	0.333	0.167									
	Quinton de Kock																			6	1	1	2	3	4									
Fielder	Alex Carey																			8	1	1	4	2	1									
	B.B. McCullum																			7	0.5	0.25	1	1	3									
	Musfiqur Rahim																			3	0.333	0.5	0.2	1	1									
	Sahi Hope																			6	0.25	1	0.067	1	1									
	S. Raina																										1	2	7	9	8	9		
Fielder	K. Pollard																										0.5	1	1	7	4	8		
	V. Kohli																										0.14	1	1	2	6	7		
	Faf Du Plessis																										0.11	0.143	0.5	1	1	2		
	D. Bravo																										0.13	0.25	0.17	0.2	1	2		
	AB De Villiers																											0.11	0.125	0.14	0.1	0.5	1	

Page 6 SEMCOM Management & Technology Review



Attributes																																			
Player's Name		Batsman						Bowler						All Rounder						Wicket Keeper						Fielder									
		Babar Azam	G.J. Maxwell	C. Munro	V. Kohli	R.G. Sharma	A.J. Finch	Rashid Khan	Imad Wasim	A.U. Rashid	Zampa	Sakib Al Hasan	I.S. Sodhi	Mohd. Nabi	S.C. Williams	K.J. O'Brien	J.P. Duminy	R. Jadeja	Perera	M.S. Dhoni	Quinton de Kock	Alex Carey	B.B. McCullum	Musfiqur Rahim	Sahi Hope	S. Raina	K. Pollard	V. Kohli	Faf Du Plessis	D. Bravo	AB De Villiers				
Batsman	Babar Azam	0.39																																	
	G.J. Maxwell		0.20																																
	C. Munro			0.09																															
	V. Kohli				0.04																														
	R.G. Sharma					0.08																													
Bowler	A.J. Finch						0.18																												
	Rashid Khan							0.39																											
	Imad Wasim								0.14																										
	A.U. Rashid									0.06																									
	Zampa											0.06																							
All Rounder	Sakib Al Hasan										0.04																								
	I.S. Sodhi											0.31																							
	Mohd. Nabi												0.47																						
	S.C. Williams													0.15																					
	K.J. O'Brien														0.17																				
Wicket Keeper	J.P. Duminy															0.11																			
	R. Jadeja																0.06																		
	Perera																	0.03																	
	M.S. Dhoni																		0.03																
	Quinton de Kock																			0.29															
Fielder	Alex Carey																				0.27														
	B.B. McCullum																					0.16													
	Musfiqur Rahim																						0.12												
	Sahi Hope																								0.13										
	S. Raina																									0.47									
	K. Pollard																										0.23								
	V. Kohli																											0.17							
	FafDu Plessis																												0.05						
	D. Bravo																														0.05				
	AB De Villiers																																		
		0.03																																	

<b>Eigen Vector</b>	0.39	0.20	0.10	0.04	0.08	0.19
<b>Sum</b>	2.43	7.53	10.50	21.00	12.50	6.45
<b>1 * 2</b>	0.95	1.52	1.00	0.91	1.05	1.20
<b>Eigen Value max <math>\lambda</math></b>	<b>6.6241</b>					

Table 1.9: Batsman for Selection of Squad for Eigen Vector Value max  $\lambda$

<b>Eigen Vector</b>	0.40	0.14	0.06	0.06	0.04	0.31
<b>Sum</b>	2.19	9.75	17.50	23.25	27.00	3.67
<b>1 * 2</b>	0.87	1.35	1.00	1.30	0.98	1.16
<b>Eigen Value max <math>\lambda</math></b>	<b>6.6574</b>					

Table 1.10: Bowler for Selection of Squad for Eigen Vector Value max  $\lambda$

<b>Eigen Vector</b>	0.47	0.15	0.17	0.11	0.06	0.03
<b>Sum</b>	1.96	6.08	6.90	12.45	21.25	28.00
<b>1 * 2</b>	0.93	0.94	1.16	1.40	1.27	0.89
<b>Eigen Value max <math>\lambda</math></b>	<b>6.5829</b>					

Table 1.11: All Rounder for Selection of Squad for Eigen Vector Value max  $\lambda$

<b>Eigen Vector</b>	0.03	0.29	0.27	0.16	0.11	0.13
<b>Sum</b>	31.00	3.25	3.88	8.48	8.33	10.17
<b>1 * 2</b>	0.98	0.95	1.06	1.38	0.92	1.33
<b>Eigen Value max <math>\lambda</math></b>	<b>6.6152</b>					

Table 1.12: Wicket Keeper for Selection of Squad for Eigen Vector Value max  $\lambda$

<b>Eigen Vector</b>	0.47	0.23	0.17	0.05	0.05	0.03
<b>Sum</b>	1.99	4.52	9.81	20.50	20.50	29.00
<b>1 * 2</b>	0.93	1.04	1.68	1.04	1.03	0.88
<b>Eigen Value max <math>\lambda</math></b>	<b>6.6001</b>					

Table 1.13: Fielder for Selection of Squad for Eigen Vector Value max  $\lambda$

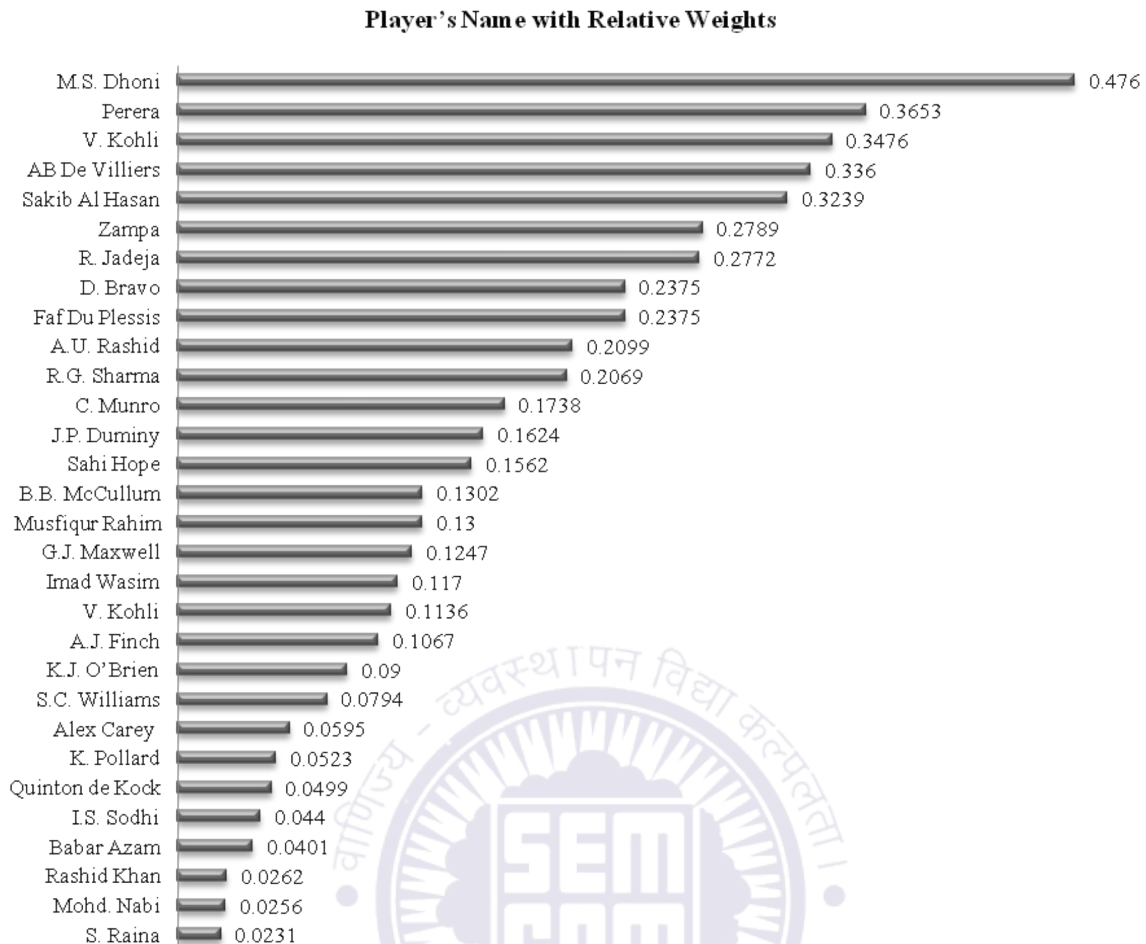
#### SUMMARY ON THE BASIS OF SECURED POSITIONS AS PER THEIR ATTRIBUTES

For this research, the researchers have structured layer 1 (Attribute) and layer 2 (Cricket Players) for cricket players attribute and skills. The summary of these findings have been included in table 1.14.

Table 1.14: Summary on the basis of Secured Positions as per their Attributes

Layer		Eigen Value max $\lambda$ from a Comparison Matrix	CI	CR	Accepted / Rejected	Remarks
1	Attributes for Player	5.4443	0.4443	9.92%	Accepted	—
	Batsman	6.6241	0.6241	9.46%	Accepted	
2	Bowler	6.6574	0.6574	9.96%	Accepted	
	All Rounder	6.5829	0.5829	8.88%	Accepted	
	Wicket Keeper	6.6152	0.6152	9.92%	Accepted	
	Fielder	6.6001	0.6001	9.68%	Accepted	

**Note:** RI for n = 5 is 1.12 & n = 6 is 1.24. CI and CR are Consistency Index and Consistency Ratio. **CR < 10%, hence subjective evaluation about its importance is consistent and acceptable.**



**Figure 1.3: Player's Name with Relative Weights for Selection of Squad**

## **FINDINGS**

❖ The final result of summary of Relative Weights revealed that the Fielder is very important (42.34%) amongst the five attributes of cricket player, followed by Wicket Keeper (26.89%), All Rounder (17.31%), Bowler (9.53%), and Batsman (3.93%).

### **A. FINDINGS ON THE BASIS OF FIELDER**

❖ In the Criteria of Fielder, Summary states that relative weights of AB De Villiers is secured 0.3360; while D. Bravo and Faf Du Plessis is protected 0.2375; followed by V. Kohli, K. Pollard and S. Raina are secured with 0.1136, 0.0523 and 0.0231 respectively.

### **B. FINDINGS ON THE BASIS OF WICKET KEEPER**

❖ In the Criteria of Wicket Keeper, It derives that M.S.Dhoni is placed at a relative weight of 0.4760, while Quinton de Kock is at 0.0499, Alex Carey weight at 0.0595, followed by B.B. McCullum

weight at 0.1302, while Musfiquir Rahim influence at 0.1300, and Sahi Hope is secured with 0.1562.

### **C. FINDINGS ON THE BASIS OF ALL ROUNDER**

❖ In Attribute of All-Rounder, It reveals that Perera, located at a relative weight of 0.3653, while R. Jadeja is at 0.2772, In addition J.P.Duminy is at 0.1624, K. J. O'Brien is at 0.0900, S.C.Williams is at 0.0794 and Mohd. Nabi at 0.0564.

### **D. FINDINGS ON THE BASIS OF BOWLER**

❖ In evaluation of Criteria of Bowler Sakib Al Hasan the at a relative weight 0.3239, while Zampa is at 0.2789, In addition A.U. Rashid is at 0.2099, Imad Wasim is at 0.1170, I.S.Sodhi is at 0.0440 and Rashid Khan is weight at 0.0262.

### **E. FINDINGS ON THE BASIS OF BATSMAN**

❖ In the result from criteria of Batsman Virat Kohli is at a weight of 0.3476, while R.G.Sharma is

at 0.2069, In addition C. Munro is at 0.1738, G.J. Maxwell is at 0.1247, A.J.Finch is at 0.1067 and Babar Azam weight at 0.0401.

### **CONCLUSION**

The game of T20 is very famous amongst all formats of cricket in the World. The Popularity of T20 is increasing day by day amongst all age of viewers and spectators. The Study focuses on Deciding World's Best T20 Cricket Squad by applying AHP Model. The AHP technique has given most influenced attribute which are used to select the T20 cricket team and summing up with result that redefine the structure and roles of Batsman, Bowler,

All-Rounder, Wicket Keeper and Fielder Attributes.

By applying AHP, It is concludes that Fielder is most influenced attribute while proposed the squad. Wicket Keeper is second, followed by All Rounder, than Bowler and Lastly Batsman.

Fielder would be Good Batsman, Better Bowler or Best All Rounder. A Wicket keeper has good wicket keeping skills and preferably a very good Batsman. An All Rounder would be either Good Batsman or Good Bowler.

On the Basis of AHP Model using five attributes the Final Squad of 15 players for World's Best T20 Cricket is as follows:

**World's Best T20 Cricket Squad**

<b>Sr. No.</b>	<b>Batsman</b>	<b>Bowler</b>	<b>All Rounder</b>	<b>Wicket Keeper</b>	<b>Fielder</b>
<b>1</b>	V. Kohli	Sakib Al Hasan	Perera	M.S. Dhoni	AB De Villiers
<b>2</b>	R.G. Sharma	Zampa	R. Jadeja	Sahi Hope	D. Bravo
<b>3</b>	C. Munro	A.U. Rashid	J.P. Duminy		Faf Du Plessis
<b>4</b>	G.J. Maxwell				

### **LIMITATION AND FURTHER SCOPE OF STUDY**

- The Study is limited up to Five Attributes only and not focused on Skills of each Attributes.
- Same Study can be conducted for One Day International and Test Match.

- Same Study can be conducted for region wise (state and nationwide, gender wise)
- Further Study can be conducted taking various skills criteria for each attribute for prioritizing best player among each attributes.
- Same Study can be conducted different sports games at different level.

### **References**

1. Buckley, J. J. (1985). Fuzzy Hierarchical Analysis. *Fuzzy Sets and System*, 17(3), pp. 233 - 247.
2. Gerber, H., & Sharp, G. D. (2006). Selecting a Limited Overs Cricket Squad Using an Integer Linear Programming Model. *South African Journal for Research in Sport and Physical Education*, 28(2), 81 - 90.
3. Haas, P., & Meixner, O. (2005). *An Illustrated Guide to Analytical Hierarchy Process*. University of Natural Resources and Applied Life Science, Vienna.
4. Jayakumar, V., Raju, R., Marriappan, C., & Ravivikram, I. (2010). An Analytical Hierarchical Approach to Decision Making For Selection of Engineering College in Tamilnadu. *IUP Journal of Operations Management*, IX, 3 - 8.
5. Kamble, A. G., Venkata Rao, R., Kale, A. V., & Samant, S. P. (2011). Selection of Cricket Players Using Analytical Hierarchy Process. *International*

- Journal of Sports Science and Engineering*, 5 (1), 207 - 212.
6. Lourens, M. (2009, January). INTEGER OPTIMIZATION FOR THE SELECTION OF A TWENTY20 CRICKET TEAM. *Nelson Mandela Metropolitan University*. South Africa.
  7. Ozceylan, E. (2016). A MATHEMATICAL MODEL USING AHP PRIORITIES FOR SOCCER PLAYER SELECTION: A CASE STUDY. *South African Journal of Industrial Engineering*, 27 (2), 190 - 205.
  8. Saaty, T. L. (2009). Extending the Measurement of Tangible to Intangibles. *International Journal of Information Technology & Decision Making*, 8(1), 7 - 27.
  9. Saaty, T. L. (1980). *Fundamentals of the Analytic Hierarchy Process*. New York: McGraw Hill.
  10. Triantaphyllou, E. (2002). Multi-Criteria Decision Making Methods: A Comparative Study. *Springer*.
  11. Triantaphyllou, E., & Manns, H. (1995). Using the Analytic Hierarchy Process for Decision Making in Engineering Application : Some Challenges. *International Journal of Industrial Engineering : Applications and Practice*, 2 (1), 35 - 44.
  12. Vargas, L. G. (1990). An Overview of the Analytic Hierarchy Process and its Applications. *European Journal of Operation Research*, 48, 2 - 8.
  13. Venkata Rao, R. (2007). Decision Making in the Manufacturing Environment: Using Graph Theory and Fuzzy Multiple Attribute Decision Making Methods. *Springer Series in Advanced Manufacturing*.
  14. Venkata Rao, R. (2004). Evaluation of Metal Stamping Layouts using An Analytic Hierarchy Process Method. *Journal of Materials Processing Technology*, 152, 71 - 76.
  15. [www.icc-cricket.com/rankings/mens](http://www.icc-cricket.com/rankings/mens). (2019, October). Retrieved October 2019, from [www.icc-cricket.com](http://www.icc-cricket.com)

---

#### Authors' Profile

##### **Dr. Kinchit P. Shah**

Assistant Professor,  
Faculty of Commerce,  
Sankalchand Patel University, Visnagar, Gujarat.

Email: [phd.kinchit@gmail.com](mailto:phd.kinchit@gmail.com)

##### **Dr. Ankur D. Amin**

Assistant Professor,  
P. G. Department of Business Studies,  
Sardar Patel University,  
V. V. Nagar, Gujarat,

Email: [ankur9999@gmail.com](mailto:ankur9999@gmail.com)



## LIQUIDITY OF COMMERCIAL BANKS IN INDIA: PRE AND POST CRISIS ANALYSIS

Dr. Shradha H. Budhedeo

### Abstract

The banking canvas in India is highlighted with changing hues from the time of colonial British era to the reforms period to the recent digitized era; from nationalization of banks to deregulation; from traditional banking practices to adoption of technology; and then with a higher degree of liberalization encouraging increasing number of foreign banks in India. The present study analyzes and compares the liquidity position of bank groups in India between the pre financial crisis (2001-02 to 2007-08) and post financial crisis (2008-09 to 2018-19) periods using t-test analysis. The results reveal that private sector bank group and foreign bank group have maintained higher capital adequacy ratio in the post crisis period while public sector bank group reveals no significant difference in the sample means. Public sector and private sector bank groups have reported higher current and cash ratios post crisis. The foreign bank group has resorted to keeping lower current and cash ratios in the crisis period.

Keywords: Public Sector Bank, Private Sector Bank, Foreign Bank, Liquidity, Capital Adequacy Ratio, Current Ratio, Cash Ratio, Financial Crisis

### Introduction and Background

The banking sector is central to the growth and stability of economies. Developed banking systems play crucial role especially in developing countries like India. The Indian banking industry is adequately capitalized and well-systematized. It has revolutionized and evolved magnificently over phases of time adapting to changes and challenges. The banking canvas in India is highlighted with changing hues ranging from the time of colonial British era to the reforms period to the recent digitized era; from nationalization of banks to deregulation; from traditional banking practices to adoption of technology; and then with a higher degree of liberalization encouraging increasing number of foreign banks in India. The most modern is the leveraging of technology and digitization that has brought about a phenomenal change in the working style of banks and the way people bank.

The Indian banking system is broadly structured into scheduled and non-scheduled banks. Scheduled banks are classified into commercial banks and cooperative banks. Commercial banks are a group of regional rural banks, public banks and private banks; where the latter is a cluster of private sector banks and foreign banks operating in India. Post-independence, the Indian banking industry inherited a system where small private banks multiplied. 56 per cent of all bank deposits in 1947 lay with the 81 scheduled and 557 non-scheduled private banks (RBI, 2008). In 1969, the five Indian cities, namely Bombay, Calcutta, Delhi, Madras and Ahmedabad alone accounted for 44 per cent of all bank deposits and 60 per cent of total bank credit in the country.

Prior to nationalization, banking was restricted largely to the urban areas and large businesses dominated the credit profiles. By the end of 1960s, it was clear that without a structural break in the banking system, the purpose of development planning would get undermined. The need for nationalization was felt mainly because private commercial banks were not fulfilling the social developmental goals of banking, which are critical for any industrializing country. Nationalization served as a remedy to the grim effects of the nexus between banks and big businesses that were disproportionately cornering bank finance; it increased penetration of banks into rural areas with the idea of ensuring equitable flow of credit to every sector of the economy and social groups; it also aimed at providing stability to the banking system by preventing bank failures and speculative activities. By 1980, nearly 80 percent of the banking industry in India was under government ownership and control. However, the government banks started witnessing trouble in the later part of eighties with falling profitability and rising costs. Besides, the government banks were hands full dealing with other critical issues, such as weak risk management systems and prudential norms, bureaucratization and red-tapism, oppressive trade union problems and poor technology adaptation, unmanageable massive branch network and poor customer service standards.

Reforms were apparently inevitable at both economic and financial fronts. With the launch of the process of reforms, privatization and liberalization; private sector banks flourished and many foreign banks also entered the Indian banking industry. The government banks faced stiff competition from the private banks and were eventually outperformed by the latter. Still, together the public sector banks and private sector banks camouflaged the banking space. By the end of the century, the share of domestic banks stood at 90.7% in total bank deposits and 88.6% in total credit advanced by banks. Of total 296 commercial banks, there were 59 domestic banks, 42 foreign banks and 196 regional rural banks.

The global financial crisis started in 2008. The problems that were first noticed in the US subprime mortgage market quickly spilled over into the real estate and banking sectors in the US market and then into the international markets. The contagion effect impacted both the advanced economies and the emerging market economies. The crisis adversely impacted not alone the world economies but did not spare even the traditionally strong economies. In India, the problem raised by global financial crisis was diagnosed as the lack of liquidity in the money market which adversely affected the flow of credit to industries. Therefore, RBI followed liquidity easing monetary policies. Despite sincere efforts by RBI at lowering the CRR and infusing money in the system, the credit to industries did not pick up to the extent it was expected to happen and most banks were sitting on surplus cash. The global meltdown effects made the Indian banks risk averse and they did poor lending business for fear of defaults by the borrowers. After 2009, the public sector banks witnessed a drastic fall in their return on equity and net interest margin. The profitability of these banks suffered and they lagged behind their private counterparts, in particular to the new private sector banks.

The Indian economy stayed relatively insulated from the global financial crisis. The financial sector has not remained unscathed, fortunately though the Indian banking sector was not overly exposed to the sub-prime crisis. Only one of the larger banks, ICICI was partly affected but managed to thwart a crisis because of its strong balance sheet and timely action by the government. India's monetary and economic

situation is far superior to those of other countries. Many studies regarding credit and liquidity risk have observed that banks in India are generally buoyant and have the ability to face global crises. Despite the resilience of the Indian banking industry, the decade following the onset of the global financial crisis has revealed substantial weaknesses in the banking system. Banks have been found to overlook the prudential framework, resorting to excessive lending and risk-taking unsupported by adequate capital and liquidity buffers. The effects of the crisis have weighed heavily on economic growth, financial stability and bank performance. Although the storm has passed, the regulators have responded to the crisis by reforming the global prudential framework and enhancing banking supervision.

Against this backdrop, the present study tries to examine how the commercial banks in India have managed their liquidity post financial crisis. Has there been any significant change in their liquidity position in response to global financial crisis? Have the banks in India maintained higher liquidity after the impact of crisis worldwide? Do the different bank groups reveal comparable liquidity management strategy post crisis vis-à-vis their pre-crisis scenario?

### **Status of Commercial Bank Groups in India**

The following data throws light on the status of commercial bank groups in India at different points of time with reference to the analysis period in the study. Table 1 reveals that the share of public sector bank group in total business by commercial banks has been gradually substituted by the private sector bank group with increasing share of the latter. The foreign bank group has witnessed a decline in its lending alongside a stagnant share of deposits. Table 2 exhibits the liquidity position of bank groups in terms of selected liquidity parameters. Public and private sector bank groups have been found to maintain their capital adequacy ratio in the range of 11% to 15%. The foreign bank group shows a huge backup of capital adequacy ratio rising from 46% in 2001 to 67% in 2018. The current as well as cash ratios have been increasing over time for both public and private sector bank groups while they have trending downwards for the foreign bank group.

Table: 1 Business Share of Commercial Bank Groups

Bank Group	2001			2008			2018		
	No. of Banks	Deposits (in Cr)	Credit Advance d (in Cr)	No. of Banks	Deposits (in Cr)	Credit Advance d (in Cr)	No. of Banks	Deposits (in Cr)	Credit Advance d (in Cr)
<b>PSBG</b>	27 (28%)	9,68,750 (81%)	4,80,680 (74%)	27 (34%)	31,12,74 7 (77%)	22,59,21 2 (75%)	20 (23%)	84,86,21 4 (66%)	59,26,28 6 (61%)
<b>PvtSBG</b>	30 (31%)	1,69,440 (14%)	1,16,430 (18%)	22 (27%)	7,36,378 (18%)	5,75,328 (19%)	22 (25%)	37,70,01 3 (29%)	33,27,32 8 (35%)
<b>FBG</b>	40 (41%)	64,511 (5%)	48,632 (8%)	31 (39%)	2,14,076 (5%)	1,65,385 (6%)	45 (52%)	5,81,857 (5%)	3,96,724 (4%)
<b>Total</b>	97 (100%)	12,02,70 1 (100%)	6,45,742 (100%)	80 (100%)	40,63,20 1 (100%)	29,99,92 5 (100%)	87 (100%)	128,38,0 84 (100%)	96,50,33 8 (100%)

Table: 2 Liquidity Indicators of Commercial Bank Groups

Bank Group	2001			2008			2018		
	CRAR (%)	CUR	CASHR	CRAR (%)	CUR	CASHR	CRAR (%)	CUR	CASHR
<b>PSBG</b>	11.8	1.38	0.05	13.49	1.91	0.08	11.54	2.56	0.13
<b>PvtSBG</b>	12.14	1.34	0.05	15.23	1.69	0.15	15.35	1.87	0.15
<b>FBG</b>	46.38	2.69	0.03	59.58	0.50	0.01	66.92	0.84	0.003

### Objective of the Study

In an earlier study, Budhedeo and Pandya (2020) have examined the liquidity position of public and private sector bank groups over the pre and post financial crisis periods in the Indian economy in reference to the global financial crisis effects. The study evaluated the trends in important liquidity parameters of public and private sector bank groups for the pre-crisis period as well as the period following the crisis. The present study is an extension of the previous research and attempts to undertake a comparative analysis of liquidity management by bank groups in response to financial crisis. In the context of the banking conditions and economic environment in the aftermath of global financial crisis as discussed in the introductory section, the present study on bank performance attempts to undertake a comparative examination of liquidity position of bank groups in India between the pre and post financial crisis periods using t-test analysis.

The study is divided into seven sections. Section 1 draws the background of the study. The status of commercial bank groups in India has been

highlighted in section 2. Section 3 states the objective of the study followed by review of literature in section 4. Section 5 explains the research methodology used for the study. Section 6 covers discussion and analysis of empirical results. The last section 7 concludes the study.

### Literature Review

A pioneer Indian study by Mohan and Ray (2004) compared the performance of commercial banks in India for the period 1992 to 2000. Public sector banks, private sector banks and foreign banks were compared using data envelopment analysis for revenue maximization efficiency model and also for physical quantities of input and output. The efficiency parameters were compared using t-test. The study found that public sector banks and foreign banks performed better than private sector banks in India. Srinivas and Saroja (2013) evaluated the financial performance of HDFC bank and ICICI bank in India for the period 2003 to 2012. The study used t-test to compare the financial performance of the two banks using CAMELS model. The results suggest that there is no significant difference between the financial performance of ICICI bank



and HDFC bank. Biswas (2014) examined the performance of two public sector banks in India – Andhra Bank and Bank of Maharashtra for the period 2011 to 2013. The performance of banks was analyzed using CAMEL model and independent t-test. It was found that Andhra Bank stood better in terms of management efficiency and earning quality. Bank of Maharashtra revealed better asset quality and liquidity. Both the banks maintained similar capital adequacy ratio. Balaji and Kumar (2016) analyzed the financial performance of five public sector and five private sector banks in India. The study was carried out for the period of 2011-12 to 2015-16. Data were examined using mean and t-test. It was concluded that public sector banks lag behind the private sector banks. Limbasiya and Chaudhary (2018) evaluated the financial performance and soundness of selected public sector banks and private sector banks in India for the period 2016-17. CAMEL approach was used to examine the financial performance of banks. Comparative analysis was carried out using composite rankings and independent two sample t-test. The results showed a statistically significant difference between the CAMEL ratios of selected public and private sector banks in India. Budhedeo and Pandya (2018) examined the short-term liquidity performance of foreign banks in India over the post financial crisis period (2008-09 to 2016-17). Student's t-test was used to compare the short-term liquidity performance of individual foreign banks with their bank group and also to facilitate comparison among the individual banks. The comparison of short-term liquidity management of foreign banks with their bank group reveals that although Citibank exhibits better liquidity management than foreign bank group, the latter stands better than Standard Chartered bank. HSBC bank is at par with the bank group in terms of their liquidity management capacity. Between the three individual foreign banks; Citibank ranks first in terms of short-term liquidity management, followed by HSBC bank and Standard Chartered bank consecutively. Parashar and Sahu (2019) investigated the impact of economic slowdown due to global financial crisis on the non-performing assets of State Bank of India. The financial performance of SBI group has been examined by comparing financial ratios between the pre crisis period (2001-02 to 2007-08) and post crisis period (2008-09 to 2013-14) using paired t-test. The study found that there is no significant

impact of sub-prime crisis on the performance of SBI. The study also engaged a comparative performance of SBI group, nationalized banks group and private sector bank group. The private sector bank group surpassed the performance of other bank groups. A number of international studies have also employed similar tests to analyze bank performance across the globe. Sabi (1996) examined the performance of domestic and foreign banks in Hungary using student's t-test and Kruskal-Wallis tests on financial ratios for the year 1992-93. Spathis, Kosmidou and Dompous (2002) investigated the effectiveness and positioning of banks in the financial market of Greece. The study employed t-test to see the difference in the efficiency ratios of small and large banks for the period 1990 to 1999. Samad (2004) studied the performance of the interest-free Islamic banks and the interest-based conventional commercial banks in Bahrain. The performance of banks was compared on the basis of Student's t-test results with respect to liquidity risk, credit risk and profitability for the period 1991 to 2001. A study on Kenyan banks by Marangu (2007) analyzed the effect of bank mergers on financial performance of non-listed banks. The data was analyzed on the basis of measures of central tendency, standard deviation and variance. Paired t-test was used to determine the level of significance before and after mergers in banks. Joshua (2011) compared the impact of mergers and acquisitions of banks in Nigeria for the period 2002 to 2008. Pre and post-merger indices were analyzed using t-test statistics. Hadriche (2015) attempted to identify and compare the determinants of bank performance for Islamic banks and conventional banks operating in GCC countries for the period 2005 to 2012. The study analyzed bank finances using CAMEL model and comparison were done using independent sample t-test and ANOVA. It was found that Islamic banks were more profitable than the conventional banks. Rahman and Nitu (2018) tried to identify the difference in financial performance of state-owned banks and private commercial banks in Bangladesh. CAMEL analysis and independent sample t-test was adopted to study and compare the sample of six banks for the period 2010 to 2014.

### **Research Methodology**

The study compares the liquidity performance of bank groups – public sector, private sector and foreign bank groups in India between the pre-crisis

period and post crisis period. The analysis has been carried out for selected liquidity indicators of the bank groups.

The period of analysis ranges from the commencement of the 21st century 2001-02 to the very recent year 2018-19. The entire spread of 18 year period is been divided into two phases for the sake of analysis: the pre financial crisis period (2001-02 to 2007-08) and the post financial crisis period (2008-09 to 2018-19). The study used one-tailed student's t-test to determine whether the liquidity parameters measuring liquidity position of bank groups differ significantly post crisis as against the pre-crisis period. The data for the study have been sourced from various issues of RBI publications.

The liquidity position of the bank groups is assessed on the basis of three financial indicators – capital adequacy ratio, current ratio and cash ratio of banks. By standard norms, banks need to maintain adequate capital against risk assets so as to protect depositors and promote stability and efficiency of bank. Capital adequacy ratio (CRAR) measures the bank's capital to risk weighted assets. Bank's capital includes tier 1 and tier 2 capital. Tier 1 capital is the core capital of permanent nature which safeguards against unexpected losses. Tier 2 capital is supplementary capital including undisclosed reserves that are not available on permanent basis. Risk weighted assets are assets that are held by banks to reduce the risk of insolvency. Current ratio (CUR) measures short-term liquidity of bank and its ability to meet short

term obligations within a year. It is computed as the ratio of current assets to current liabilities. Here, current assets include cash in hand, balance with banks within India and outside India, balance with RBI and money at call and short notice. Current liabilities are a sum of bills payable, interest accrued, deferred tax liabilities, subordinate debt, inter office adjustments, and others (including provisions). Cash ratio (CASHR) is calculated as the ratio of cash in hand to current liabilities. Cash ratio shows bank's capacity to pay-off current liabilities with its cash holdings.

### Results, Analysis and Interpretation

The study compares and evaluates the liquidity position of public sector, private sector and foreign bank groups during pre-crisis period vis-à-vis post crisis period, on the basis of their capital adequacy ratio (CRAR), current ratio (CUR) and cash ratio (CASHR) averages. T-test results for the pre and post crisis phases have been displayed in tables 3, 4 and 5 for respective bank groups.

The hypotheses for assessing the liquidity performance of bank groups have been constructed considering the mean values of liquidity indicators for pre-crisis phase ( $\mu_X$ ) and for post crisis phase ( $\mu_0$ ). One tailed t-test enables comparison of the sample means with the hypothesized value to arrive at significant difference between the two. The hypothesis is accepted or rejected at 5% level of significance. The rejection decision rule for null hypothesis and its interpretation is stated as under:

One-tailed Student's t-test Rejection Criterion for Null Hypothesis

Null Hypothesis ( $H_0$ )	Alternative Hypothesis ( $H_a$ )	Critical Region <i>Reject <math>H_0</math> if</i>	One-tailed Test
$\mu_X = \mu_0$	$\mu_X > \mu_0$	t-calculated > t-tabulated	Right-tailed
$\mu_X = \mu_0$	$\mu_X < \mu_0$	t-calculated < (-) t-tabulated	Left-tailed

Source: Gujarati, 1999

In case of right-tailed t-test, if t-calculated is greater than critical value or t-tabulated, the null hypothesis gets rejected. Conversely, for left-tailed t-test, if t-calculated is smaller than t-tabulated, null hypothesis is rejected in favor of alternative hypothesis.

Table: 3 Liquidity Position of Public Sector Bank Group

Variables	Phase	Mean	$H_0$	$H_a$	t-cal	t-tab	Accept / Reject $H_0$
CRAR	Pre Crisis	12.51	$\mu_X = \mu_0$	$\mu_X > \mu_0$	0.68	1.74	Accept $H_0$
	Post Crisis	12.28				Right-tailed	
CUR	Pre Crisis	1.18	$\mu_X = \mu_0$	$\mu_X < \mu_0$	-5.15	-1.74	Reject $H_0$
	Post Crisis	2.59				Left-tailed	
CASHR	Pre Crisis	0.05	$\mu_X = \mu_0$	$\mu_X < \mu_0$	-4.72	-1.74	Reject $H_0$
	Post Crisis	0.13				Left-tailed	

## Interpretation:

The t-calculated value (0.68) of capital adequacy ratio for public sector bank group is less than the t-tabulated value (1.74). Null hypothesis is accepted indicating that there is absence of any significant difference in the capital adequacy ratio maintained by public banks in the pre crisis period and the post crisis period. The t-calculated value of current ratio (-5.15) and cash ratio (-4.72) is less than their t-tabulated value (-1.74) for the public sector bank group. In both the cases,  $H_0$  is rejected implying a significant difference in the liquidity position of public sector banks post crisis in comparison to pre-crisis phase. The public banks have retained higher liquidity in the form of current as well as cash ratios in response to the financial crisis.

Table: 4 Liquidity Position of Private Sector Bank Group

Variables	Phase	Mean	$H_0$	$H_a$	t-cal	t-tab	Accept / Reject $H_0$
<b>CRAR</b>	Pre Crisis	13.00	$\mu_x = \mu_0$	$\mu_x < \mu_0$	-5.04	-1.74 Left-tailed	Reject $H_0$
	Post Crisis	15.52					
<b>CUR</b>	Pre Crisis	0.94	$\mu_x = \mu_0$	$\mu_x < \mu_0$	-3.89	-1.74 Left-tailed	Reject $H_0$
	Post Crisis	1.64					
<b>CASHR</b>	Pre Crisis	0.07	$\mu_x = \mu_0$	$\mu_x < \mu_0$	-14.01	-1.74 Left-tailed	Reject $H_0$
	Post Crisis	0.16					

## Interpretation:

The t-calculated values for all the three liquidity parameters – capital adequacy ratio (-5.04), current ratio (-3.89) and cash ratio (-14.01) are less than their t-tabulated values (-1.74) for private sector bank group.  $H_0$  is rejected for the three variables under study in favor of alternative hypothesis ( $H_a$ ), suggesting significant difference in liquidity management by private sector banks post crisis vis-à-vis pre crisis. Private sector bank group resorted to holding of higher liquidity in the post financial crisis period as part of prudent measures to tide over any expected impact of the global crisis.

Table: 5 Liquidity Position of Foreign Bank Group

Variables	Phase	Mean	$H_0$	$H_a$	t-cal	t-tab	Accept / Reject $H_0$
<b>CRAR</b>	Pre Crisis	43.08	$\mu_x = \mu_0$	$\mu_x < \mu_0$	-4.58	-1.74 Left-tailed	Reject $H_0$
	Post Crisis	63.06					
<b>CUR</b>	Pre Crisis	1.23	$\mu_x = \mu_0$	$\mu_x > \mu_0$	2.33	1.74 Right-tailed	Reject $H_0$
	Post Crisis	0.73					
<b>CASHR</b>	Pre Crisis	0.02	$\mu_x = \mu_0$	$\mu_x > \mu_0$	4.11	1.74 Right-tailed	Reject $H_0$
	Post Crisis	0.01					

## Interpretation:

The t-calculated value of capital adequacy ratio (-4.58) is less than t-tabulated value (-1.74) for foreign bank group. Therefore,  $H_0$  is rejected implying significant difference in CRAR in the post crisis period as against the period before crisis. The foreign bank group has been extremely prudent and risk averse beyond the regulated norms in terms of their capital adequacy. Almost all foreign banks have been found to uphold very high capital adequacy ratios in the pre crisis period as well, which is in fact much higher in the post crisis phase. The t-calculated values of current ratio (2.33) and cash ratio (4.11) are greater than the t-tabulated value (1.74). Here, alternative hypothesis is accepted signifying considerable difference in the liquidity position of foreign banks before and after crisis. Despite a significant change in current and cash ratios of foreign banks between the two phases, they have not focused on retaining higher liquidity buffers post crisis as the other Indian bank groups, public and private sector. Foreign banks already have huge buffers in terms of their tier 1 and tier 2 capital and further route to higher current and cash ratios would only mean additional loss of business for these banks.

To sum up the t-test analysis, the results reveal that private sector bank group and foreign bank group have maintained higher capital adequacy ratio in the post crisis period while public sector bank group reveals no significant difference in the sample means. Public sector and private sector bank groups have reported higher

current and cash ratios post crisis. The foreign bank group has resorted to keeping lower current and cash ratios in the crisis period.

### Conclusion

In the nineties, banks were advised by RBI to keep lower liquidity for encouraging higher lending to the industries. A decade later, the global financial crisis in 2008 impacted the advanced economies as well as the emerging market economies. Subsequent to the introduction of Basel II norms in 2008, banks were required to keep higher liquidity buffers to escape any possible side effects of the looming financial crisis. The problem faced by the Indian market was largely the lack of liquidity and flow of credit to the industries. However, the financial crisis made the Indian banks risk averse and they resorted to higher liquidity management for fear of default by borrowers. Most banks were sitting on surplus cash which led to fall in their business and profitability. The predicament of banks in India was not the effects of a direct impact of global financial crisis but on account of banks becoming reluctant to lend actively fearing losses. Despite the relative resilience of the Indian banking industry, the period following the global financial crisis revealed substantial weaknesses in the banking system.

In this context, the present study has examined the liquidity position of commercial bank groups in India. The study has engaged a comparative evaluation of liquidity position of public sector bank group, private sector bank group and foreign bank group in India between the pre financial crisis (2001-02 to 2007-08) and post financial crisis (2008-09 to 2018-19) periods using one-tailed t-test analysis. The results have led to the conclusion that the private sector and foreign bank groups have managed higher capital adequacy post crisis. The public and private sector bank groups retain higher current and cash ratios after the impact of crisis as compared to the pre crisis phase. In case of foreign bank group, the banks have maintained lower liquidity in the post crisis phase vis-à-vis the pre crisis phase. Foreign banks have been maintaining adequate amount of capital throughout, while they have resorted to increasing their CRAR post crisis rather than higher current and cash ratios.

### References

1. Balaji, C., & Kumar, G. P. (2016). A Comparative Study on Financial Performance of Selected Public & Private Sector Banks in India. *Journal of Commerce and Trade*, 11(2), 89-96.
2. Biswas, M. (2014). Performance Evaluation of Andhra Bank & Bank of Maharashtra with Camel Model. *International Journal of Business and Administration Research Review*, 1(5), 220-226.
3. Budhedeo, S. H., & Pandya, N. P. (2018). Short Term Liquidity of Foreign Banks in India. *Asian Review of Social Sciences*, 7(2), 90-96.
4. Budhedeo, S. H., & Pandya, N. P. (2020). Understanding the Liquidity Management by Domestic Banks in India: Pre and Post Financial Crisis. In S. M. Iqbal, R. Neema & R. Rajak (Eds), *Transforming Business and Social Economic Development* (73-81), KAAV Publication.
5. Gujarati, D. N. (1999). *Essentials of Econometrics* (2nd Ed). Singapore: Irwin/McGraw-Hill.
6. Hadriche, M. (2015). Banks Performance Determinants: Comparative Analysis between Conventional and Islamic Banks from GCC Countries. *International Journal of Economics and Finance*, 7(9), 169-177.
7. Joshua, O. (2011). Comparative Analysis of the Impact of Mergers and Acquisitions on Financial Efficiency of Banks in Nigeria. *Journal of Accounting and Taxation*, 3(1), 1-7.
8. Limbasiya, N. R., & Chaudhary, P. (2018). Measuring Financial Performance Using Camel's Model: A Comparative Analysis of Indian Public and Private Sector Banks. *Nolegein Journal of Financial Planning and Management*, 1(1).
9. Retrieved from <http://www.mbajournals.in/index.php/JoFPM/article/view/112>
10. Marangu, K. (2007). Effects of Mergers on Financial Performance of Non Listed Banks in Kenya, Unpublished Master's Thesis, University of Nairobi.
11. Mohan, T. T. R., & Ray, S. C. (2004). Comparing Performance of Public and Private



- Sector Banks: A Revenue Maximisation Efficiency Approach. Economic and Political Weekly, 39(12), 1271-1276.
12. Parashar, A., & Sahu, J. (2019). A Comparative Study of Performance of Indian Banking Sector during Sub-Prime Crisis. Journal Current Science, 20(6).
  13. Rahman, B., & Nitu, A. A. (2018). Financial Performance between State-owned and Private Commercial Banks in Bangladesh: A Comparative Study of Using CAMEL Rating. ASA University Review, 12(1), 109-124.
  14. RBI. (2008). Banking Sector in India: Emerging Issues and Challenges. Special Edition of the Report on Currency and Finance, Reserve Bank of India, 4.
  15. Retrieved from <https://m.rbi.org.in/Scripts/PublicationsView.aspx?id=11269>
  16. Sabi, M. (1996). Comparative Analysis of Foreign and Domestic Bank Operations in Hungary. Journal of Comparative Economics, 22(2), 179-188.
  17. Samad, A. (2004). Performance of Interest-Free Islamic Banks Vis-À-Vis Interest-based Conventional Banks of Bahrain. Journal of Economics and Management, 12(2), 1-15.
  18. Spathis, C., Kosmidou, K., & Dompous, M. (2002). Assessing Profitability Factors in the Greek Banking System: A Multicriteria Methodology. International Transactions in Operational Research, 9, 517-530.
  19. Srinivas, K., & Saroja, L. (2013). Comparative Financial Performance of HDFC Bank and ICICI Bank. International Refereed Multidisciplinary Journal of Contemporary Research, 1(2), 107-126.

---

## **Author's Profile**

### **Dr. Shradha H. Budhedeo**

Associate Professor  
Department of Business Economics  
Faculty of Commerce  
The M. S. University of Baroda  
Vadodara, India

Email: [shradhamsu@gmail.com](mailto:shradhamsu@gmail.com)

## **A STUDY ON IMPACT OF LIFE STYLE ORIENTATION FOR ONLINE SHOPPING CONTINUANCE**

**Mr. Bhavesh Solanki, Dr.Raju Rathod**

### **Abstract**

Online shopping is increasing in a world in dramatic world, the results will show the substantial activities, various kinds of interest and different opinion of on-line shoppers, and also this study will help us to find the extent of online shopping continuance in Gujarat. Why online shoppers persistently buying from online. We can also able to find the various lifestyle factors that influence consumers' intention to repurchase online and at last after the completion of this study we are able to explore and lifestyle based Profile of online shoppers.

A handy perspective, the discoveries from this examination may profit online retailers, online banks, online financiers whose plans of action and income streams depend on long haul use of IT items and administrations. The consequences of this examination will give a few thoughts and viable recommendations, which can be actualized, especially in web-based shopping, to improve its continuation (for example, client maintenance procedures).

**Keywords:** Online Shopping, Lifestyle factors

### **Introduction of the study**

Internet shopping is proceeding to experience wide development around the world. Responsible for the development is the developing number of clients shopping on the web with expanding trust in online properties. The utilization of the Internet has increased a quick development since its presentation in the mid-1980s. Such a development is for the most part because of its one of kind qualities of adaptability, intuitiveness, and personalization. Specifically, the Internet has been an extremely valuable instrument for correspondence, stimulation, training, and electronic exchange (Ko, Jung, Kim, and Shim, 2004; Koyuncu and Lien, 2003). From a business point of view, the Internet has changed how businesses should run. This is because of the way that it empowers retailers to offer boundless scope of items and services to all customers from around the globe anytime. It is likewise viewed as the most useful direct promoting channel for the worldwide commercial center. From a shopper point of view, the Internet has given buyers more control in getting to data on items and services. Shoppers pull for online substance - they choose whether, when, where, what, and how much business content they wish to see.

The Internet additionally enables customers to get to a boundless scope of items and services from organizations around the globe, and it has diminished the time and energy of purchasers who spend on internet shopping (Ko et al., 2004).

Today Internet isn't just a systems administration media, but also an exchange mechanism for purchasers at worldwide market on the planet, and becomes prevailing retailers later on. The most fundamental component of e-retail offers a direct intelligent channel just as no time definition, individuals and spot. To shop on Internet turns into an option for buyers since it is more agreeable than local shopping which normally ascribed with restless, swarmed, road turned parking lot, restricted time, and parking spot and so on.

### **Review of Literature**

#### **Demographics**

Demographic variables are frequently viewed as when specialists attempt to decide why shoppers shop on the web. As indicated by past examinations, Demographic variables affect web-based shopping. Bellman et al. (1999) recognized a few components that impact individual online buy conduct and they found that segment factors, for example, pay, age and training have emphatically affected online buy conduct. Dias (2003) likewise refers to that diverse age bunches have different frames of mind toward buying conduct. Youthful customers are probably going to buy items and administrations on the web (Silverman, 2000). Andrew et al. (2007) recommended that men are keen on item classifications, for example, PC equipment, and programming while ladies are unequivocally pulled in to the utilitarian advantages of web-based shopping.

Thananuraksakul (2007) found that male customers were probably going to have a higher online purchase goal than female, with more experience; they were bound to buy on the web. Wang et al. (2008) expressed that knowledgeable shoppers were reminiscent of receptiveness and upgraded capacity to process new data. Li et al. (1999) contended that pay and instruction are two factors generally connected with web-based shopping.

### **Computer and Internet Usage**

PC utilization has been connected to web-based shopping (Shim and Drake, 1990). The more much of the time customers use PCs the more they are happy to embrace web-based shopping (Gehrt and Yan, 2004). Miyazaki and Fernandez (2001) and Siu and Cheng(2001) clarified that online buyers have more noteworthy web use understanding, utilize other in-home obtaining strategies and have progressively good dispositions toward innovation.

### **Psychographics**

Psychographics are the utilization of mental, sociological, and anthropological components to consider how the market can be divided and see how buyers settle on choices in various fragments (Demby, 1989). In psychographic division, Kotler (1997) partitioned buyers into various gatherings dependent on their character attributes and way of life. Anderson and Golden (1984) expressed that way of life alludes to how individuals live, how they go through their cash, and how they distribute their time. Bellman et al. (1999) portrayed the term wired Lifestyle as one which alludes to people who utilize the web for working, looking out data, and correspondence. These gatherings have been utilizing the web for quite a long while and are probably going to be trailblazers. Internet shopping can be named an imaginative shopping group. Donthu and Garcia(1999) saw that more youthful shopper tend as pioneers more than more established customers. Way of life and character qualities (inspiration, observation, character, frames of mind) help distinguish customer profiles and focus on shoppers. Online customers are considered to have higher PC information than non-online buyers (Brown and Venkatesh, 2003). Donthu and Garcia (1999) found that the attributes of online purchasers are probably going to be comfort searchers, imaginative, incautious, assortment searchers, and risk disinclined. Kini and Chobineh (1998) found that online customer character qualities are straightforwardly identified with extraversion

(chatty, amiable, and certainly showing up in broad daylight) and neuroticism (on edge and delicate).

### **Objectives of the Study**

The objectives of the study are

1. To explore and prepare lifestyle based profile of online shoppers
2. To identify the lifestyle factors that influence consumers' intention to go for online shopping

### **Research Methodology**

#### **• Data collection Method:**

Internet shopping is proceeding to experience broad development. The investigation incorporates essential Information that was assembled utilizing the pre tried poll, which was conveyed offline and online to connect with the more extensive crowd. In the survey, the specialist has included 17 AIO articulations (Lifestyle instrument) with segment attributes alongside measures managing PC and Internet use and Information, and socioeconomics.

Secondary Information relating to the examination was acquired from auxiliary sources, for example, reference books, magazines, and diary, explore papers, and web.

The exploration fuses fundamental data that were collected using the pre-tried overview, which was scattered actually and online to interface with a progressively large gathering of individuals. In the overview, the researcher has included 17 AIO explanations (Lifestyle instrument) with segment attributes alongside measures managing PC and Internet use and Information and socioeconomics.

Auxiliary Information related to the investigation was gotten from discretionary hotspots, for instance, reference books, magazines, newspapers, and sites.

#### **• Sample size:**

The knowledge of random sample and convenient sampling was utilized for choosing respondents. The sample size of 500 of Gujarat was taken for inquire the purpose. The examination is descriptive and utilizing a survey containing both open ended and close ended questionnaires. A portion of these inquiries utilized five point Likert scale to catch information relating preference variables and demographic parameters..(Gender, Age, Employment status, Income level, Educational level, Marital status,).The study began with

exploratory research configuration to have a more profound understanding of the evolving condition.

• Population:

The population for the research is from Gujarat state only which includes cities as Ahmedabad, Anand, Vadodara, Surat, and Rajkot.

• Sample Unit:

For the research, the sample unit was an individual consumer who uses the facility of internet and purchasing online.

Analysis and Interpretation

The research is the means of breaking an unpredictable point or substance into littler parts to get discoveries of specific study. For this investigation, different sorts of tests were finished utilizing the Chi-square test, T-test, F test ANOVA, diagrams, tables, rates, factor examination, and the Microsoft Excel spreadsheet. Information investigation was done with the assistance of SPSS.

Table 1: Time Spent on Computer (Per Week)

Time Spent	Frequency	Percent
0 hours	62	12.4
1-5 hours	139	27.8
5-10 hours	176	35.2
10-15 hours	75	15
15-20 hours	25	5
20-25 hours	19	3.8
25 hours or more	4	0.8
Total	500	100

The above table and Graph 1 shows time went through by respondents consistently on PC, it is observable that the main most noteworthy gathering goes under 5-10 hours utilization of PC which is 35.2% of the all-out respondents, the second-most noteworthy gathering shelter 1-5 hours with 27.8%, there are 0.4 level of respondents who utilizes PC over 25 hours, which is exceptionally less.

Graph 1: Time Spent on Computer (Per Week)

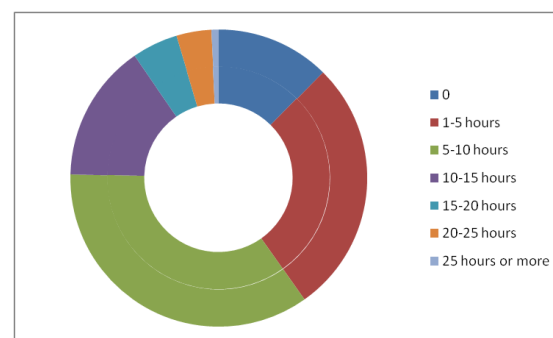
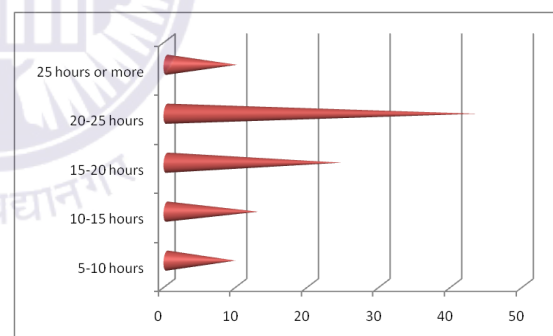


Table 2: Time Spent on Internet (Per week)

Time Spent	Frequency	Percent
5-10 hours	48	9.6
10-15 hours	64	12.8
15-20 hours	122	24.4
20-25 hours	217	43.4
25 hours or more	49	9.8
Total	500	100

Graph 2: Times Spent on Internet (Per Week)



The above table and diagram shows time went through by respondents consistently on web, it is recognizable that the principal most noteworthy gathering goes under 20-25 hours utilization of PC which is 43.4% of the complete respondents, the second-most noteworthy gathering shelter 15-20 hours with 24.4%, there are 9.8 level of respondents who utilizes web over 25 hours in seven days, which is more than the use of PC in 1.1 table, so it infers that respondents must utilize web on their mobile phones and not on PC.

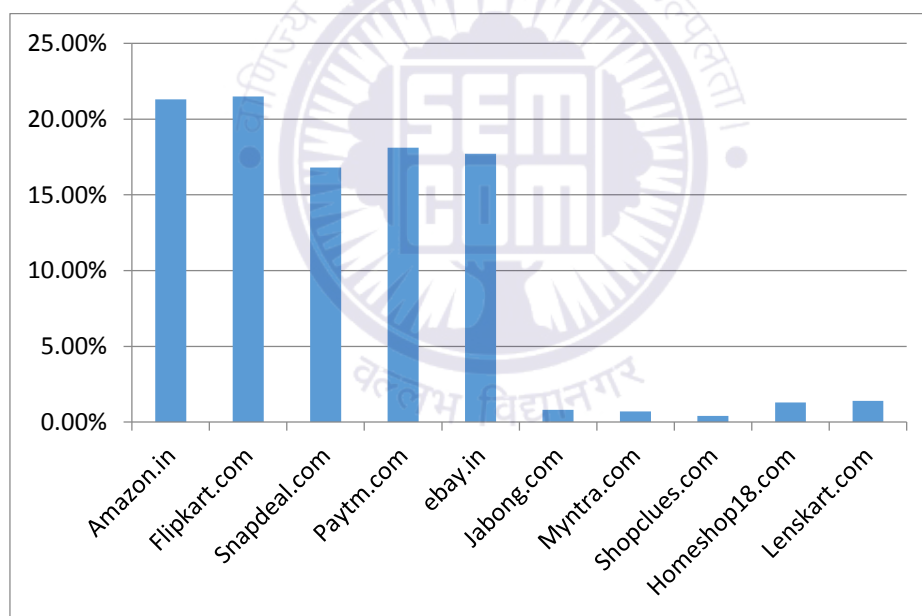


Table 3: Usage of website to buy products online.

Website	Responses	
	N	Percent
Frequently bought from site, Amazon. in	386	21.30%
Frequently bought from site, Flipkart.com	389	21.50%
Frequently bought from site, Snapdeal.com	305	16.80%
Frequently bought from site, Paytm.com	327	18.10%
Frequently bought from site, ebay.in	320	17.70%

Website	Responses	
	N	Percent
Frequently bought from site, Jabong.com	15	0.80%
Frequently bought from site, Myntra.com	12	0.70%
Frequently bought from site, Shopclues.com	8	0.40%
Frequently bought from site, Homeshop18.com	24	1.30%
Frequently bought from site, Lenskart.com	25	1.40%

Graph 3: Usage of website to buy products online.



There are numerous online destinations an analyst has drilled down, in above table it is demonstrating that Flipkart goes ahead first on the rundown with 21.5 % of website clients and Amazon goes ahead second with 21.3 % of its clients, there is no any enormous distinction in these rates finally.

#### **Factor Analysis of Internet Buying Behavioral Statements**

The maxim of factor analysis is to discover a strategy of removing the data contained in various genuine factors to a littler arrangement of new composite measurements (factors) with immaterial loss of data. That is, the Factor Analysis attempts to recognize and characterize the fundamental measurements in the genuine factors.

Table 4: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.743
Bartlett's Test of Sphericity	Approx. Chi-Square	1969.817
	df	136
	Sig.	.000

#### Interpretation

The KMO gauges the testing adequacy (which chooses whether the responses given with the model are adequate or not) which should be close than 0.5 for a decent factor assessment to proceed. Kaiser (1974) propose 0.5 (regard for KMO) as least (hardly recognized), values between 0.7-0.8 commendable, and characteristics above 0.9 are astonishing. Looking table, the KMO measure is 0.743, which is more significant than 0.5 and right now be barely recognized

Bartlett's test is another indication of the nature of the relationship among factors. This tests the invalid hypothesis that the relationship structure is a character cross section. A character matrix is a system where the total of the corner to corner segments is 1 and all off inclining parts (term explained above) are almost 0. You have to expel this invalid speculation. From a comparable table, we can see that the Bartlett's Test of Sphericity is basic (0.000). That is, centrality is under 0.05. Believe it or not, it is extremely 0.000, for instance, the monstrosity level is adequately little to expel the invalid theory. This suggests an association framework is a character organizes.

Table 5: Communalities

	Initial	Extraction
Behaviour Statement, I always search for the lowest price in just about everything I buy.	1.000	.628
Behaviour Statement, I want my purchases to be absolutely private.	1.000	.819
Behaviour Statement, I like browsing on the Internet.	1.000	.661
Behaviour Statement, I like having products delivered to me at home.	1.000	.325
Behaviour Statement, I would shop on the Internet (more) if the prices were lower.	1.000	.496
Behaviour Statement, I often go to the Internet to preview products.	1.000	.505
Behaviour Statement, I often go to the Internet for product reviews or recommendations.	1.000	.524
Behaviour Statement, I think Internet shopping would avoid the hassle of local shopping.	1.000	.425
Behaviour Statement, I like it that no car is necessary when shopping on the Internet.	1.000	.379
Behaviour Statement, For me, shopping in stores is a hassle.	1.000	.885
Behaviour Statement, I would like not having to leave home when shopping.	1.000	.884
Behaviour Statement, I think on-line buying is (or would he) a novel, fun way to shop.	1.000	.651
Behaviour Statement, I enjoy buying things on the Internet.	1.000	.422
Behaviour Statement, I think the Internet offers lower prices than local stores.	1.000	.430
Behaviour Statement, I think Internet shopping offers better selection than local stores.	1.000	.473
Behaviour Statement, I often return items I have purchased.	1.000	.510

	Initial	Extraction
Behaviour Statement, I think Internet shopping offers better quality than local stores.	1.000	.552
Extraction Method: Principal Component Analysis.		

**Table 6: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.698	21.754	21.754	3.698	21.754	21.754	2.836	16.682	16.682
2	1.890	11.115	32.869	1.890	11.115	32.869	2.415	14.207	30.889
3	1.792	10.543	43.412	1.792	10.543	43.412	1.823	10.726	41.615
4	1.134	6.671	50.083	1.134	6.671	50.083	1.256	7.388	49.002
5	1.053	6.195	56.278	1.053	6.195	56.278	1.237	7.275	56.278
6	.944	5.552	61.830						
7	.918	5.401	67.231						
8	.807	4.747	71.979						
9	.778	4.579	76.557						
10	.729	4.289	80.847						
11	.664	3.904	84.751						
12	.582	3.426	88.177						
13	.571	3.357	91.534						
14	.537	3.160	94.693						
15	.468	2.752	97.445						
16	.241	1.419	98.864						
17	.193	1.136	100.000						

Graph 4: Screen Plot

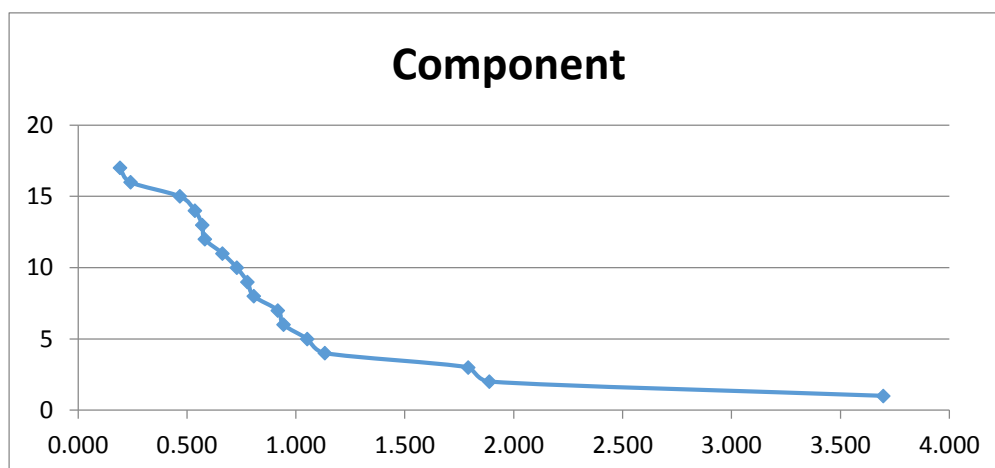


Table 7: Component Matrix<sup>a</sup>

	Component				
	1	2	3	4	5
Behaviour Statement, I always search for the lowest price in just about everything I buy.	.750				
Behaviour Statement, I would shop on the Internet (more) if the prices were lower.	.674				
Behaviour Statement, I want my purchases to be absolutely private.	.651	-.520			
Behaviour Statement, I think Internet shopping offers better selection than local stores.	.570				
Behaviour Statement, I think Internet shopping would avoid the hassle of local shopping.	.529				
Behaviour Statement, I think the Internet offers lower prices than local stores.	.510				
Behaviour Statement, I like having products delivered to me at home.					

	Component				
	1	2	3	4	5
Behaviour Statement, I like it that no car is necessary when shopping on the Internet.					
Behaviour Statement, I like browsing on the Internet.		-.600			
Behaviour Statement, I think on-line buying is (or would he) a novel, fun way to shop.	.511	-.514			
Behaviour Statement, I often go to the Internet for product reviews or recommendations.					
Behaviour Statement, For me, shopping in stores is a hassle.			.823		
Behaviour Statement, I would like not having to leave home when shopping.			.822		
Behaviour Statement, I often return items I have purchased.				.554	
Behaviour Statement, I enjoy buying things on the Internet.					
Behaviour Statement, I think Internet shopping offers better quality than local stores.					.508
Behaviour Statement, I often go to the Internet to preview products.					
Extraction Method: Principal Component Analysis.					
a. 5 components extracted.					

Component Matrix<sup>a</sup>

**Table 8: Rotated Component Matrix<sup>a</sup>**

	Component				
	1	2	3	4	5
Behaviour Statement, I think Internet shopping would avoid the hassle of local shopping.	.643				
Behaviour Statement, I would shop on the Internet (more) if the prices were lower.	.639				
Behaviour Statement, I think the Internet offers lower prices than local stores.	.637				
Behaviour Statement, I always search for the lowest price in just about everything I buy.	.598	.517			
Behaviour Statement, I think Internet shopping offers better selection than local stores.	.561				
Behaviour Statement, I like it that no car is necessary when shopping on the Internet.	.560				
Behaviour Statement, I often go to the Internet for product reviews or recommendations.	.519				
Behaviour Statement, I like having products delivered to me at home.					
Behaviour Statement, I want my purchases to be absolutely private.		.883			
Behaviour Statement, I like browsing on the Internet.		.806			
Behaviour Statement, I think on-line buying is (or would be) a novel, fun way to shop.		.802			
Behaviour Statement, For me, shopping in stores is a hassle.			.938		
Behaviour Statement, I would like not having to leave home when shopping.			.933		
Behaviour Statement, I think Internet shopping offers better quality than local stores.				.721	
Behaviour Statement, I often go to the Internet to preview products.				.682	
Behaviour Statement, I often return items I have purchased.					.707
Behaviour Statement, I enjoy buying things on the Internet.					.620
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 5 iterations.					

**Table 9: Component Transformation Matrix**

Component	1	2	3	4	5
1	.762	.555	.172	.202	.200
2	.531	-.706	-.364	.293	-.047
3	.043	-.419	.885	.042	.195
4	-.315	.018	-.171	.525	.771
5	-.188	.133	.162	.772	-.570

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

**Table 10: Labeling to factors**

We have taken total 17 Internet Buying Behavioral Statements to study, by performing factor analysis on them, we got total 5 factors which are similar to each other, 1st factor consisted 6 statements, 2nd factor consisted 3 statements, 3rd and 4th and 5th statement consisted 2 factors.

Factors	Label
1	Prices are lower on internet
2	Privacy is maintained
3	Internet Shopping is hassle free
4	Internet have better quality
5	Fun-loving way to use.

## Conclusion

We have taken 500 respondents to direct this study, by investigating the above actualities, we arrived at the resolution that there is no any considerable distinction in web usage between male and female, those eventually, male respondents are more toward web shopping when contrasted with female respondents. Components life information on web index, web, PC, and installing anti viruses emphatically influence the pattern of web-based shopping. The individuals who, as often as possible, purchase items from the network imagine that the web is a carefree method to shop, the web gives them more security than neighborhood shops, there is no issue while purchasing from the internet. They can utilize their free hours in obtaining, the network provides them superior quality over the nearby shop, and even the costs were lower than the neighborhood shops.

## References

- Kim J, Park J (2005). A consumer shopping channel extension model: attitude shift toward the online store. *J. Fash. Mark. Manag.*, 9(1): 106-121.
- Atcharyachanvanich, K., Okada, H. and Sonehara, N. (2006), "what keeps online customers repurchasing through the internet?", *ACM SIGecom Exchanges*, Vol. 6 No. 2, pp. 47-57.
- Ko H, Jung J, Kim JY, Shim SW (2004). Cross-cultural differences in perceived risk of online shopping Retrieved June 21, 2005, from <http://www.jiad.org/vol4/no2/ko>. *J. Interact. Advert.*, 4(2).
- Tsai, H.-T. and Huang, H.-C. (2007), "Determinants of e-repurchase intentions: an integrative model of quadruple retention drivers", *Information & Management*, Vol. 44 No. 3, pp. 231-9.
- Khalifa, M. and Liu, V. (2007), "Online consumer retention: contingent effects of online shopping habit and online shopping experience", *European Journal of Information Systems*, Vol. 16 No. 6, pp. 780-93.
- Tsai, H.-T., Huang, H.-C., Jaw, Y.-L. and Chen, W.-K. (2006), "Why on-line customers remain with a particular e-retailer: an integrative model and empirical evidence", *Psychology & Marketing*, Vol. 23 No. 5, pp. 447-64.
- Min, Q. (2007), "Consumer behavior towards continued use of online shopping: an extend expectation disconfirmation model", in Wang, W., Li, Y., Duan, Z., Yan, L., Li, H. and Yang, X. (Eds), *Integration and Innovation Orient to E-Society*, Vol. 1, Springer, Boston, MA.
- Khalifa, M., Limayem, M. and Liu, V. (2001), "Online consumer stickiness: a longitudinal study", paper presented at the 5th Pacific Asia Conference on Information Systems (PACIS), Seoul.
- Hsu, M.H., Chiu, M.C. and Ju, T.L. (2004), "Determinants of continued use of the WWW: an integration of two theoretical models", *Industrial Management & Data Systems*, Vol. 104 No. 9, pp. 766-75.
- Jiang, P. and Rosenbloom, B. (2005), "Customer intention to return online: price perception, attribute-level performance, and satisfaction unfolding over time", *European Journal of Marketing*, Vol. 39 Nos 1/2, pp. 150-74.
- Hsu, M.-H., Yen, C.-H., Chiu, C.-M. and Chang, C.-M. (2006), "A longitudinal investigation of continued online shopping



- behavior: an extension of the theory of planned behavior'', International of Journal Human-Computer Studies, Vol. 64 No. 9, pp. 889-904
12. Koyuncu C, Lien D (2003). E-commerce and consumer's purchasing behaviour. *Appl. Econ.*, 35(6): 721-726.
13. Bellman, S., Lohse, G., & Johnson, E. (1999), Predictors of online buying behavior, *Communications of the ACM*, 42(12), pp. 32-38.
14. Dias, L.P. (2003), General buying motivations for fashion, *Journal of Fashion Marketing Management*, 7(1), pp. 78-86.
15. Andrew, L., Kiel, G., Drennan, J., Boyle, V.M., & Weerawardena, J. (2007), Gendered perceptions of experiential value in using web-based retail channels, *European Journal of Marketing*, 41(5/6), pp. 640-658.
16. Thananuraksakul, S. (2007), Factors influencing online shopping behavior intention: A study of Thai consumers, *AU Journal of Management*, 4(2), pp. 41-46.
17. Wang, G., Dou, W., & Zhou, N. (2008), Consumption attitudes and adoption of new consumer products: A contingency approach, *European Journal of Marketing*, 42(1/2), pp. 238-254.
18. Shim, S., & Drake, M.R. (1990), Consumer intention to utilize electronic shopping, *Journal of Direct Marketing*, 4, pp. 22-23.
19. Gehrt, C.K., & Yan, R. (2004), Situational, consumer and retailer factors affecting internet, catalog, and store shopping, *International Journal of Retail & Distribution Management*, 32(1), pp. 5-18.
20. Miyazaki, A.D., & Fernandez, A. (2001), Consumer perceptions of privacy and security risks for online shopping. *Journal of Consumer Affairs*, 35, pp. 27-44.
21. Swinyard, William R. and Scott M. Smith (2003). Why People (Don't) Shop Online: A Lifestyle Study of the Internet Consumer, *Psychology & Marketing*, 20(7), 567-597.
22. Siu, N. Y.M., & Cheng, M. M.S. (2001), A study of the expected adoption of online shopping; The case of Hong Kong, *Journal of International Consumer Marketing*, 13, pp. 87-106.
23. Demby, E.H. (1989), Psychographics revisited: The birth of a technique, *Marketing News*, 23(1), pp 21
24. Kotler, P. (1997), *Marketing Management Analysis, Planning, Implementation, and Control*, 9th ed., Englewood Cliffs, NJ: Prentice Hall International
25. Swinyard, William R. and Scott M. Smith (2003). Activities, Interests, And Opinions Of Online Shoppers And Non-Shoppers, *International Business & Economics Research Journal* (3)4, 37-4
26. *Consumer Behaviour*, Schiffman And Kanuk 59

---

## **Authors' Profile**

**Mr. Bhavesh Solanki**

rrssaoundation@gmail.com

**Dr. Raju Rathod**

Professor, GHPIBM

S.P University

Vallabh Vidyanagar



## AN EMPIRICAL STUDY ON PRESENT STATUS AND SWOT ANALYSIS OF GOODS AND SERVICES TAX IN INDIA

Dr Khyati Jagatkumar Patel

### Abstract

The introduction of GST is a historic reform in Indian taxation scheme. It consolidates comprehensive central and state taxes and also allows the set off of prior stage taxes. It will tone down the cascading affect and pave the way of growth. It can be prove as an operative instrument of fiscal policy. Although GST has been adopted by more than 100 countries in the world, the scope of GST implementation greatly varies from one country to another. GST is the most rational steps towards the inclusive indirect tax reform in our country since freedom. GST is legible on all supply of goods and provision of services as well combination thereof. All sectors of economy whether the industry, business, government departments and service sector shall have to bear impact of GST.

The SWOT analysis on GST can provides the information that is helpful in matching the resources and capabilities to the environment in which it operates. It helps in analyzing the strengths, weaknesses, opportunities and threats that are facing in monitoring of GST in the country.

Key Words: Taxation system, Cascading affect, Tax reforms, Comprehensive tax reform, SWOT analysis

### Introduction

India is a centralized constitutional economy country. GST is applicable on all States and Union territories known as CGST (Central Goods & Services Tax) and SGST (State Goods & Services Tax). The ill effects of cascading can be mitigated after tie up the central and states taxes in solitary tax. The economy is expected to cover the way of common nationwide market as it will provide assistances to consumer by reducing overall tax burden of goods.

Goods and Services Tax (GST) is an indirect tax (or consumption tax) on the source of properties and facilities levied in India. GST is imposed at every step in the production procedure, but it is meant to be refunded to all revelries in the various stages of production other than the final customer.

Goods and services are alienated into five tax slabs for collection of tax - 0%, 5%, 12%, 18% and 28%. However, petroleum products, alcoholic drinks, energy are not taxed under GST and instead are taxed discretely by the distinct state governments as per the former tax government. There is a unusual rate of 0.25% on rough valuable and semi-precious stones and 3% on gold.

The GST derived into effect from July 1, 2017 through the application of one hundred and first amendment of the Constitution of India by the Indian government. The tax substituted present multiple flowing taxes levied by the central and state governments.

The tax rates, rules and regulations are governed by the GST Council which consists of the finance ministers of center and all the states. GST is meant to substitute a skid of indirect taxes with a united tax and is hence expected to redesign the country's 2.4 trillion dollar economy.

India accepted a dual GST model, meaning that taxation is managed by both the Union and State Governments. Transactions made within a single state are levied with Central GST (CGST) by the Central Government and State GST (SGST) by the State governments. For inter-state dealings and imported goods or services, an Integrated GST (IGST) is charged by the Central Government.

GST is a consumption-based tax/destination-based tax thus, taxes are paid to the state where the goods or services are spent not the state in which they were produced. IGST confuses tax gathering for State governments by disabling them from collecting the tax owed to them directly from the Central Government. GST is imposed on all the industries such as sale, transfer, acquisition, switch, tenancy, or import of goods and/or services.



## Review of Literature

Shrawat , Dhanda (2015) stated that, in long term implementation of GST would lead to high output, more employment opportunities and flourish GDP by 1-1.5%. As far as challenges are concerned they need more analytical research to resolve the battling interest of various stakeholders and accomplish the commitment for a cardinal reform of Tax Structure in India.

Devi (2016) focused on SWOT analysis of GST in Indian context and found various strengths, weakness, threats and opportunities of GST like strength is it will drop the cascading effects of taxes on production and distribution of goods and services, opportunity is that it will help states and center to collect more revenue , main weakness is that various taxes are not included in GST and main threat is that GST is very fond of technology and India being developing country does not have strong IT structure.

Lourdunathan & Xavier (2017) in their study stated that, the implementation of GST requires more support from the government and also the Government to educate the people by conducting the seminars and workshops on GST so as to create awareness among society about GST.

Bharti Sharma (2018) stated that, Implementing of the GST makes uniformity of taxes across the states in India regardless of place of manufacture or distribution in India, which is better option when compared to VAT and in terms of administration. GST integrates the tax base and capable of allowing seamless flow of input tax credit along the value chain of goods and services, which will lead to reduced cost of overall goods and services existing.

## Objectives of the Study

1) To analyze the present status of GST.

2) To perform SWOT analysis on GST and present suggestions.

## Research Methodology

Data Collection:

The study weights on extensive sources of Secondary Data.

Sources of Data:

Suitable data collected from government websites, several national and international journals and articles, periodicals, conference papers, government reports, newspapers, publications which attentive on numerous phases of tax structure and GST.

Month	2017-18 Collection	2018-19 Collection	Change
April	NA	Rs.103,459 crore (US\$14 billion)	--
May	NA	Rs. 94,016 crore (US\$13 billion)	--
June	NA	Rs. 95,610 crore (US\$13 billion)	--
July	NA	Rs. 96,483 crore (US\$13 billion)	--
August	Rs.93,590 crore (US\$13 billion)	Rs. 93,960 crore (US\$13 billion)	▲
September	Rs. 93,029 crore (US\$13 billion)	Rs. 94,442 crore (US\$13 billion)	▲
October	Rs. 95,132 crore (US\$13 billion)	Rs. 100,710 crore (US\$14 billion)	▲

Month	2017-18 Collection	2018-19 Collection	Change
November	Rs. 85,931 crore (US\$12 billion)	Rs. 97,617 crore (US\$14 billion)	▲
December	Rs. 83,716 crore (US\$12 billion)	Rs. 97,726 crore (US\$13 billion)	▲
January	Rs. 88,929 crore (US\$12 billion)	Rs. 86,318 crore (US\$13 billion)	▼
February	Rs. 88,407 crore (US\$12 billion)	Rs. 85,174 crore (US\$12 billion)	▼
March	Rs. 89,264 crore (US\$12 billion)	Rs. 97,247 crore (US\$14 billion) (Up to 10 <sup>th</sup> March, 2019)	▲

Source: GST Network (GSTN)

GST mop-up had crossed the ₹ 1 lakh crore marks for the first time in April. The total gross GST revenue collected in October was little over ₹ 1 lakh crore. Out of which CGST (Central Goods and Services Tax) was ₹ 16,464 crore while SGST (State Goods and Services) and IGST (integrated Goods and Services Tax) contributed ₹ 22,826 crore and ₹ 53,419 crore respectively. Total collection through cess was ₹ 8,000 crore. The revenue collected in October was higher by 6.64 per cent against September's ₹ 94,442 crore.

The Government has settled ₹ 17,490 crore to CGST and ₹ 15,107 crore to SGST from IGST as regular settlement. Further, ₹ 30,000 crore has been settled from the balance IGST available with the Centre on provisional basis in the ratio of 50:50 between the Centre and States. The total revenue earned by the Central and State Governments after regular and

provisional settlement in October is ₹ 48,954 crore for CGST and ₹ 52,934 crore for the SGST.

The full gross GST income composed in the month of August, 2018 is ₹ 93,960 crore of which CGST is ₹ 15,303 crore, SGST is ₹ 21,154 crore, IGST is ₹ 49,876 crore (including ₹ 26,512 crore collected on imports) and cess is ₹ 7,628 crore (including ₹ 849 crore collected on imports). Number of return filers has gone up to 67 lakhs as against 66 lakh during previous months. The last date of filing return of July, 2018 in the State of Kerala was extended up to 5th October, 2018.

The total revenue earned by Central Government and the State Governments after settlement including provisional settlement of ₹ 12,000 crore in the month of August, 2018 is ₹ 36,963 crore for CGST and ₹ 41,136 crore for the SGST.

### Need and Importance of SWOT Analysis on GST

The SWOT Analysis framework is a very important and useful tool in scanning of the internal and external environment part of the GST process in the country. The internal environment factors can be classified as Strengths (S) and Weaknesses (W) the external factors can be classified as Opportunities (O) and Threats (T).



The SWOT analysis on GST can provide the information that is helpful in matching the resources and capabilities to the environment in which it operates. It helps in analyzing the strengths, weaknesses, opportunities and threats that are facing in monitoring of GST in the country. It helps to focus on the strengths, minimizing the threats and take the greatest possible advantage of opportunities available.

### Strengths of GST

Some of the strengths of GST are -

- The GST Tax is valid on all goods and services excluding some exempted products cited in the exemption list of the Act.
- GST will subsume taxes like Central Excise Duty (1944), Central Sales Tax (1956) Service Tax (1994)

and a host of state charged taxes with Value Added Tax (VAT).

- It will drop out the surging effects of tax on production and supply of goods and services.
- Better Compliance and online submission of details would result in less paper work.
- This would ultimately lead to more tax income.
- Simplification of tax collection and administration.
- Lower burden of taxes on end consumers.
- Provide advantage to the business on their overseas competitors.
- Easy flow of resources across the country.
- Widening the tax base of Central as well as State.
- It will reduce cascading effect of taxes.
- GST would be dual taxation system. It would be charged intra-State by Central and State governments. It would be called CGST (Central Goods and Service Tax) and SGST (State Goods and Service Tax) thereby eliminating loss of revenue of states and Central Government.

#### **Weaknesses of GST**

Some of the weaknesses of GST are -

- The dual model of GST outcomes in complex billing and settlement.
- The system is fully technology driven but in our country people are not more habitual of technology.
- GST is a sub sum of various States and Central taxes but many more are left at the discretion of State Government.
- Increase in operating cost of business.
- This system is very fond of technology.

#### **Opportunities of GST**

Some of the opportunities of GST are –

- The rates of GST are set at ground level which will help States and Unions to collect more revenue. This will outcome in Growing of Revenue for State and Central Government.
- GST will reduce average tax burden on customers. They will be sure about their taxes which will diminish evasion of taxes.

- GST can offer the prospect of corruption free Indian revenue services. This may aid in uprooting the black money economy and bringing all under traders and service providers under the tax regime.

- Low prices of manufactured products.
- Increase in GDP.
- Increase in exports due to price competitiveness.

#### **Opportunities of GST – to the consumers**

- Humbler tax scheme.
- Decrease in prices of goods and services due to removal of cascading.
- Even prices throughout the nation.
- Transparency in taxation structure.
- Rise in employment chances.

#### **Opportunities of GST – to the trade/industry**

- Decrease in multiplicity of taxes.
- Justification of cascading/double taxation.
- Additional effective offsetting of taxes especially for exports.
- Growth of common countrywide market.
- Simpler tax regime-fewer charges and exceptions.

#### **Opportunities of GST – to the Central/State Governments**

- A combined common national market to increase Foreign Investment and “Make in India” movement.
- Boost to export/manufacturing motion, generation of more employment, leading to reduced shortage and increased GDP development.
- Improving the total investment climate in the country which will value the progress of states.
- Even SGST and IGST rates to cut the incentive for tax evasion.
- Decline in compliance costs as no requirement of multiple recordkeeping.

#### **Threats of GST**

Some of the Threats of GST are -

- The mechanism in GST is still complex; it cannot fully eliminate black money and tax evasion.
- Preliminary burden on clients due to a temporary growth of cost of goods and services.



- GSTC (Goods and Service Tax Council) will set the yardstick for resolving the argument on references of GSTC. It means GSTC will lay down the principles for GSTC itself. It is against the norm of natural justice.
- GST is not a guarantee in itself that it would not be prejudiced by governmental parties and representatives will not practice it as a win-loss game.
- Inter-states supply of goods and services are considered as import and IGST will be applied (1%) in addition to custom duties.
- The Central government assured for compensation to loss making states for an age of 5 years. The compensation will be as: 100% for first 3 years, 75 % for 4th year and 50% for 5th year. So, it is possible that all states do not implement it in effective manner to get compensation.
- GST is not friendly with banking sector, because the cost of goods become cheaper after GST and it will promote export. Currently, 14% service tax is being taxed on banking industries. GST will make these transactions more costly. Over and above, in most of countries banking sector is excluded from GST.

#### Improvements required in GST

With the implementation of GST, India grabbed a step towards unified joint nationwide market. It purposes to take in increased effectiveness and agreement and also increase government's comfort of doing business creativity. Though, being a new, evolving law, there are definite improvements essential:

- 1) Processes must be abridged so that business can function competently in the best interest of the people and for economic progression. Filing of 37 returns per GSTIN could be a very time consuming exercise, wherein everyone would not even have the bandwidth to comply with.
- 2) GST Rates should be rationalized and reduced to make India competitive and in interest of compliance and economic growth.
- 3) Technological glitches of the GST network should be sorted out on a war footing basis.
- 4) Further, there is also no provision to amend GST Return once uploaded, in case some clerical error is found later. Provision should urgently be made to allow rectification of returns.

5) The matching concept of input credits requires large volume of data of the supplier to be matched with that of the receiver. This procedure should be cut down, wherein only broad main principles may require matching like the invoice value and the tax amount and matching of specific, precise wide change of data should not be essential alike invoice number and day.

6) In case IGST is paid instead of CGST and SGST, and vice-versa, the recourse available is only refund. Assessors should be allowed to self-adjust in such cases.

7) Composition scheme should also be provided to small scale service providers

8) Single cash ledger concept should be used instead multiple cash ledgers i.e. separate cash ledger for CGST, SGST, IGST, interest, penalty etc. Further it is suggested to allow partial / period payment of offset of tax so that an assessed can bear interest only on the short payment.

The above issues need to address on an urgent basis and to bring in more clarity in the implementation of this biggest tax reform. Rationalizing GST rates, removing excess processes, creating efficiencies, removing debatable aspects, are amongst the urgent requirements for improvements in GST in the interest of the nation as a whole. Our rates should be modest with global rates so that India develops a preferred competitive destination which will give a enhancement to "Make in India" initiative.

#### Conclusion

Thus, GST is helping the government as well as consumers in determining their revenue and expenditures in specific time period. No doubt that GST will present India in a top class taxation system which will grab the international eyes for investment. It brings international market more competitive and promotes the export. But this is entire be governed by upon rational design and timely application. There are numerous weaknesses and threats of GST which should be overcome by focusing on strengths and opportunities. There is a necessity to set different dispute settlement organization on disagreeing endorsements of GSTC.

The GST is a new law for India and every new law has its own strength and weakness. To make GST a good tax reform the Government India has to work on the strength and weakness of GST to cash the opportunities and to dilute the threats. According to the French Economist, Guy Sorman, "India is on the



clasp of revolution with GST Regime". GST is the India's train to "New India". Let's not miss this train and come together with the Government and the market, to make GST a success.

### **References**

- 1) Seema Devi (2015), Goods and Services Tax in India, International Journal of Research Granthaalayah, Vol.4, issue 12, pp. 188-195.
- 2) Lourdanathan, F., & Xavier, P. (2017). A study on implementation of goods and services tax (GST) in India: Prospectus & Challenges. International Journal of Applied Research, 3(1), pp.626-629.
- 3) Bharti Sharma GST in India (2018), IAETSD journal for advanced research in applied sciences, vol. 5, issue 2, pp. 489-497.
- 4) Vedant Madan and Deepak Joshi (2018), Tax guru.
- 5) Deewan Chopra & Co, Chartered Accountant.
- 6) Hitesh K. Prajapati (2016), "Challenges and Implementation of GST (Goods and Service Tax) in India" Paripex - Indian Journal Of Research, Volume : 5 | Issue : 7.
- 7) Pankaj Kumar and Subhrangshu Sekhar (2016), "Goods and service tax in India: problems and prospects" Asian Journal of Management Research, Volume 6 Issue 3, pp. 504-513.
- 8) Monika Sehrawat and Upasana Dhanda (2015) "GST in India – A key tax reform".
- 9) Sehrawat, Dhanda (2015). GST in India: A key tax reform. International journal of research Granthaalayah, 3((12), pp.133-141.
- 10) International journal of research Granthalya. Vol. 3, Issue. 12.
- 11) [www.wikipedia.org](http://www.wikipedia.org).

---

### **Authors' Profile**

**Dr. Khyati Jagatkumar Patel**  
Assistant Professor,  
SEMCOM

## An Impact of Capital Structure on Profitability of Selected Hotel Chains in India

Ms. Priti makhecha, Dr. Kamini Shah

### Abstract

The aim of this research paper is to examine the effect of capital structure on profitability of leading hotel chains of India. It tries to find out how debt-equity structure of these hotels plays a vital role in overall development of this huge investment requiring service sector.

This paper is based on the financial data collected from the annual reports of these hotels. There are four hotel chains selected for the purpose. ANOVA Test is conducted to test the hypothesis.

The result indicates that each and every unit is somehow not able to avail the benefit of positive financial leverage to increase its Earning per Share or return to its owners.

This research paper definitely provides a base upon which a more detailed evaluations can be made in the future. In addition to this, it would be specifically helpful to corporate managers to reframe capital structure to the extent possible to reach to an optimum capital structure.

The findings of the study are appropriate to the hospitality industry.

Key Words - ANOVA test, Earning per Share (EPS), Hospitality Industry, Optimum capital structure

### Introduction to the Study and Problem Identification

Capital structure plays a vital role in the profitability of any company. If the firm does not frame an optimum capital structure, the objective of wealth maximization of owners' funds will not be achieved. So every company must use their equity and debt capital in such a way that it can produce good results for the owners.

Hotel industry, being one of the fastest growing service sectors in the world, plays an important role for the growth and development of any country. What is the state of capital structure in hotel companies? What kind of practices followed by hotel companies? Which company manages its capital structure effectively? etc. Answers to such questions give an idea to explore "An Impact of Capital Structure on Profitability of Selected Hotel Chains in India".

This study will be helpful to selected hotels, hotel industry, other sector companies, researchers, investors and general public.

### Review of Literature

A thorough knowledge of the research topic can be gained only by reviewing any past research work and other literature related with the topic. This work can be carried out by reviewing the literature relevant to the topic. Following literature is reviewed for this purpose.

Divya Aggarwal<sup>1</sup>, Purna Chandra Padhan (2017) examined the effect of capital structure and firm quality on firm value of selected BSE listed Indian hospitality firms over a time frame of 2001-2015. An empirical study carried out through panel data techniques by applying pooled OLS, fixed effects and random effects models. The findings of the study reveal a significant relationship of firm value with firm quality, leverage, liquidity, size and economic growth. It has proved wrong the theory of Modigliani and miller for Indian hospitality sector.

Luis Miguel Pacheco & Fernando Oliveira Tavares (2017) wrote an article where the main objective was to study the capital structure determinants of small and medium enterprises (SMEs) in the hospitality sector and how this can influence their level of indebtedness. Using panel data methodology and considering a sample of 43 Portuguese hotels, the authors study the capital structure determinants between 2004 and 2013. The study examines the indebtedness level in light of the two main theories – the Trade-off theory and the Pecking Order theory. The hospitality sector was chosen because of its importance in the Portuguese economy and because this particular sector has hardly been studied. In addition to total indebtedness, the authors extend the literature by analysing the differences between short-term and long-term indebtedness. The results obtained suggest that profitability, assets tangibility firm dimension, total liquidity and risk are key factors affecting the capital structure of hospitality sector SMEs, while growth, other tax benefits and age were not deemed relevant.

These results allowed them to conclude that Trade-off and Pecking Order theories should not be considered in isolation to explain the capital structure of hospitality sector SMEs.

Paulo MacasNunes & Zelia Serrasqueira (2017) wrote an article based on a sample of 177 hotel small and medium-sized enterprises (SMEs) for the period 2004–2012, their objective was to test the applicability of trade-off theory and pecking order theory (POT) to the capital structure decisions of hotel SMEs, focusing on analysis of short-term and long-term debt. The multiple empirical evidence obtained here allows them to conclude that the applicability of trade-off theory to hotel SMEs' capital structure decisions is much greater in relation to long-term debt than short-term debt and, on the contrary, the applicability of POT is much greater in relation to short-term debt than long-term debt. The empirical evidence obtained allows us to make suggestions for the owners/managers of hotel SMEs.

Ajanthan (2013) carried out research with an objective to find out factors affecting capital structure decision. He conducted this study on hotel and restaurant companies of Sri Lanka. The investigation is performed for a sample of 15 companies listed on the Colombo Stock Exchange during 2008–2012. The results suggest that only profitability is negatively related to the debt ratios (long term; short term and total debt) whereas tangibility (asset structure), size and growth do not appear to be significantly related to the debt ratios.

Wilford Mawanza and Nathan Mugumisi (2013) carried out research which had the goal to investigate the relationship between capital structure and firm performance in the tourism and hospitality sector of Zimbabwe. The research was based on four listed companies in the tourism and hospitality sector over the period 2009 to 2013. Data analysis was done using Stata 10 through simple multiple regression techniques. Findings of the study showed that performance of firms is significantly affected by their capital structure and their relationship is negative in nature.

Keng Tiong Christopher Goh (2010) found that the high debt-financing model adopted by hotel owners in United States had contributed to a large number of foreclosures during the economic downturn. In contrast, the conservative financing model adopted by hotel owners in Singapore had sheltered them through the past recessions. The studies concluded that hotel owners in the United States and Singapore should consider Juglar's nine to eleven year business cycle as reference (Juglar, n.d.), and adopt a

financing model that undertakes an appropriate level of debt at early stage of economic upturns and when the hotel properties are increasingly enjoying high profitability

Erdinc Karadeniz, Sherkan Yilmaz & Mehmet Balcilar (2009) carried out study where the purpose was to investigate the factors affecting capital structure decisions of Istanbul Stock Exchange (ISE) lodging companies. A model based on the trade-off and pecking order theories is specified and implications of both theories are empirically tested. The model is estimated using a dynamic panel data approach for five ISE companies for the period of 1994–2006. The findings suggest that effective tax rates, tangibility of assets, and return on assets are related negatively to the debt ratio, while free cash flow, non-debt tax shields, growth opportunities, net commercial credit position, and firm size do not appear to be related to the debt ratio. Although the findings partially support the pecking order theory, neither the trade-off nor the pecking order theory exactly seem to explain the capital structure of Turkish lodging companies.

Kirti Madan (2007) reviewed debt-equity structure of leading hotel chains of India to examine the role of financing decision in the overall performance of companies. It aims to analyze the capital structure of these hotels, try to discover the industry benchmark and scrutinize how capital structure plays a momentous role in the company's overall growth. The results suggest that leverage is working positively for few companies while for others affecting negatively. The study is of specific use for top and middle level management of the selected hotel chains to reassess their capital structure for enhanced financial performance.

Paul A. Phillips & Mehmet A. Sipahioğlu (2004) wrote an article with the objective to foster research on the relationship between capital structure and corporate performance with hotel companies. Using data collected from 43 UK quoted organisations which possess an interest in owning and managing hotels, Modigliani and Miller's (1958) capital structure irrelevancy theorem is tested. Empirical analysis revealed no significant relationship between the level of debt found in the capital structure and financial performance. These results are consistent with Modigliani and Miller's theorem. Results also highlight that low levels of returns on equity are a feature of the sample. The findings of the study suggest that Chief Financial Officers of the sample organisations need to identify novel ways of expanding the business without increasing the levels of debt.

AtulSheel (1994) felt that the relationship between a firm's capital structure, its cost of capital, and its stock value is an important financial and investment issue today. Using a cross-sectional regression analysis, the leverage behavior of 33 firms in 2 industry groups-the hotel industry and the manufacturing sector-was examined. Findings showed that all leverage determinants studied, excepting firm size, are significant in explaining leverage variations in debt behavior. In addition, although more industry-specific variables are needed, leverage behavior in hotel firms can be analyzed using traditionally theorized capital structure determinants.

### Research Gap

This research study seeks to evaluate the capital structure of leading hotel chains of India to examine impact of capital structure decisions on the profitability of companies. It aims to analyze the debt-equity structure of these hotels, try to discover the industry benchmark and scrutinize how capital structure plays a momentous role in the company's overall growth. In foreign countries, many research studies have been conducted till now in the field of hospitality with reference to its capital structure, but in India, no such research is carried out by taking into consideration the debt-equity mix of leading hotel chains of the country.

Since huge investment is required and made in this hotel business, the study would give answer to the question "Being huge means being always good?"

### Research Methodology

#### Sources of Data

Annual reports of hotels, articles published in the newspapers, magazines and journals, etc., different books on Financial Management, previous research findings from various dissertations & thesis have been used as a source of data collection.

#### Sampling

Purposive or Deliberate Sampling Method is followed to carry out this study. The time period considered for this research study is four years i.e. from 2013-14 to 2016-17. The following are the samples selected for the study

- 1) Taj Group of Hotels (IHCL) (The Indian Hotels Company Limited)
- 2) The Leela Palaces Hotels Resorts (HLVL) (Hotel Leela Venture Limited)

3) Oberoi Group of Hotels (EIHL) (East India Hotels Limited)

4) Royal Orchid Hotels (ROHL) (Royal Orchid Hotels Limited)

### Hypotheses of the Study

The following hypothesis could be identified for the study:

- 1) H0: There is no significant difference between the profitability ratios of selected hotel chains.

H1: There is a significant difference between the profitability ratios of selected hotel chains

- 2) H0: There is no significant association between debt-equity and profitability of selected hotel chains

H1: There is a significant association between debt-equity and profitability of selected hotel chains

### Data Analysis & Interpretation

In the present study, the data is analyzed by employing ANNOVA Test where the level of significance is 5%. To measure the effect of capital structure on various aspects of company, ratios like Return on Assets, Return on Capital Employed, Net Profit Ratio, Debt-Equity Ratio, Debt-Asset Ratio, Interest coverage Ratio, etc are found out. For the study, entire analysis is done by personal computer. A well-known statistical package like 'Statistical Package for Social Sciences' (SPSS) 16.0 Version was used in order to analyze the data. The following debt and profitability ratios are taken into accounts which are given below.

**Table 1: Various Profitability Ratios of IHCL**

Years	Return on Assets (%)	Return on Investment (%)	Net Profit Ratio (%)	Earning Per Share (in Rs.)
2013-14	(8.73)	(7.84)	(30.63)	(7.31)
2014-15	(1.1)	1.89	(4.05)	(1.02)
2015-16	2.6	6.67	8.84	2.44
2016-17	2.3	9.7	5.94	1.43
Average	(1.23)	(2.61)	(5.09)	(1.12)

**Note:** 1. EPS is based on Equity Share of Re1 each  
2. Figures given in bracket are negative

**Source:** Annual Reports of IHCL



**Table 2: Various Debt – Equity Ratios of IHCL**

Years	Deabt – Equity Ratio (Proportion)	Financial Leverage (Degree)	Interest Coverage Ratio (Times)
2013-14	5.87:1	(0.03)	(0.03)
2014-15	12.07:1	(0.58)	(1.38)
2015-16	18.28:1	(0.53)	(1.13)
2016-17	31.08:1	(0.12)	(0.13)
Average	16.83:1	(0.32)	(0.67)

**Note:** Figures given in bracket are negative

**Source:** Annual Reports of

**Table 3: Various Profitability Ratios of HLVL**

Years	Return on Assets (%)	Return on Investment (%)	Net Profit Ratio (%)	EPS (in Rs.)
2013-14	(7.02)	(0.25)	(61.45)	(10.15)
2014-15	(7.14)	(4.99)	(65.34)	(9.06)
2015-16	(3.63)	(2.16)	(27.26)	(3.86)
2016-17	(2.16)	(0.28)	(14.65)	(2.20)
Average	(4.99)	(1.92)	(42.18)	(6.32)

**Note:** 1.EPS is based on Equity Share of Rs.2 each

2. Figures given in bracket are negative

**Source:** Annual Reports of HLVL

**Table 4: Various Debt – Equity Ratios of HLVL**

Years	Deabt – Equity Ratio (Proportion)	Financial Leverage (Degree)	Interest Coverage Ratio (Times)
2013-14	5.87:1	(0.03)	(0.03)
2014-15	12.07:1	(0.58)	(1.38)
2015-16	18.28:1	(0.53)	(1.13)
2016-17	31.08:1	(0.12)	(0.13)
Average	16.83:1	(0.32)	(0.67)

**Note:** Figures given in bracket are negative

**Source:** Annual Reports of IHCL

**Table 5: Various Profitability Ratios of EIHL**

Years	Return on Assets (%)	Return on Investment (%)	Net Profit Ratio (%)	EPS (in Rs.)
2013-14	2.78	6.55	7.72	1.78
2014-15	2.87	6.49	7.24	1.69
2015-16	3.02	6.32	7.17	1.78
2016-17	2.77	4.84	7.56	1.69
Average	2.86	6.04	7.42	1.74

**Note:** EPS is based on Equity Share of Rs.2 each

**Source:** Annual Reports of EIHL



**Table 6: Various Debt – Equity Ratios of EIHL**

Years	Deabt – Equity Ratio (Proportion)	Financial Leverage (Degree)	Interest Coverage Ratio (Times)
2-13-14	0.10:1	1.28	4.56
2014-15	0.08:1	1.20	5.94
2015-16	0.09:1	1.14	7.97
2016-17	0.10:1	1.11	9.81
Average	0.09:1	1.18	7.07

**Source:** Annual Reports of EIHL

**Table 7: Various Profitability Ratios of ROHL**

Years	Return on Assets (%)	Return on Investment (%)	Net Profit Ratio (%)	EPS (in RS.)
2013-14	(10.23)	6.45	(32.20)	(9.89)
2014-15	3.46	7.16	10.60	3.30
2015-16	2.79	5.90	8.51	2.75
2016-17	3.52	6.65	10.85	3.64
Average	(0.12)	6.54	(0.56)	(0.05)

**Note:** 1.EPS is based on Equity Share of Rs.10 each 2. Figures given in bracket are negative

**Source:** Annual Reports of ROHL

**Table 8: Various Debt – Equity Ratios of ROHL**

Years	Deabt – Equity Ratio (Proportion)	Financial Leverage (Degree)	Interest Coverage Ratio (Times)
2013-14	0.20:1	2.12	1.89
2014-15	0.19:1	1.78	2.28
2015-16	0.19:1	1.82	2.22
2016-17	0.19:1	1.61	2.85
Average	0.19:1	1.83	2.31

**Source:** Annual Reports of ROHL

Table 1 to 8 is showing various ratios of the samples selected for the study. It is observed that high amount of debt is employed by HLVL and by IHCL but for both the companies ratios are not working positively. ROHL and EIHL have shown bit conservative approach regarding proportion of debt in capital structure still have succeeded in achieving better results out of it.

Different ratios also indicate that ROHL and EIHL have used their debt –equity funds efficiently to generate sound profitability for the company. While on the other side, HLVL has failed in every respect during this period of study. IHCL has shown progressive trend after the year 2014-15.

Testing of Hypothesis

Table 9: Descriptive statistics - Various Profitability Ratios

Ratio	Descriptive Statistics						
	Hotels	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Return on Assets (%)	IHCL	4	-1.2325	5.27247	2.63623	-8.73	2.60
	HLVL	4	-4.9875	2.49011	1.24505	-7.14	-2.16
	EIHL	4	2.8600	.11576	.05788	2.77	3.02
	ROHL	4	-.1150	6.75145	3.37572	-10.23	3.52
	<b>Total</b>	<b>16</b>	<b>-.8688</b>	<b>4.93327</b>	<b>1.23332</b>	<b>-10.23</b>	<b>3.52</b>
Return on Investment (%)	IHCL	4	2.605	7.670	3.835	-7.840	9.700
	HLVL	4	-1.920	2.233	1.117	-4.990	-0.250
	EIHL	4	6.050	0.813	0.406	4.840	6.550
	ROHL	4	6.540	0.521	0.260	5.900	7.160
	<b>Total</b>	<b>16</b>	<b>3.319</b>	<b>5.016</b>	<b>1.254</b>	<b>-7.840</b>	<b>9.700</b>
Net Profit Ratio (%)	IHCL	4	-4.9750	17.97244	8.98622	-30.63	8.84
	HLVL	4	-42.1750	25.08802	12.54401	-65.34	-14.65
	EIHL	4	7.4225	.26107	.13054	7.17	7.72
	ROHL	4	-.5600	21.11941	10.55970	-32.20	10.85
	<b>Total</b>	<b>16</b>	<b>-10.0719</b>	<b>25.83023</b>	<b>6.45756</b>	<b>-65.34</b>	<b>10.85</b>
EPS (in `)	IHCL	4	-1.115	4.378	2.189	-7.310	2.440
	HLVL	4	-6.318	3.882	1.941	-10.150	-2.200
	EIHL	4	1.735	0.052	0.026	1.690	1.780
	ROHL	4	-0.050	6.570	3.285	-9.890	3.640
	<b>Total</b>	<b>16</b>	<b>-1.437</b>	<b>5.006</b>	<b>1.251</b>	<b>-10.150</b>	<b>3.640</b>

Table 10: Descriptive statistics - Various Debt – Equity Ratios

Ratios	Descriptive Statistics						
	Hotels	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Debt – Equity Ratio (Proportion)	IHCL	4	.73	.20	.10	.54	1.00
	HLVL	4	16.83	10.77	5.38	5.87	31.08
	EIHL	4	.09	.01	.00	.08	.10
	ROHL	4	.19	.01	.00	.19	.20
	<b>Total</b>	<b>16</b>	<b>4.46</b>	<b>8.81</b>	<b>2.20</b>	<b>.08</b>	<b>31.08</b>
Financial Leverage (Degree)	IHCL	4	.28	1.45	.73	-1.11	1.76
	HLVL	4	-.32	.28	.14	-.58	-.03
	EIHL	4	1.18	.08	.04	1.11	1.28
	ROHL	4	1.83	.21	.11	1.61	2.12
	<b>Total</b>	<b>16</b>	<b>.75</b>	<b>1.08</b>	<b>.27</b>	<b>-1.11</b>	<b>2.12</b>
Interest Coverage Ratio (Times)	IHCL	4	.90	3.74	1.87	-4.27	4.53
	HLVL	4	-.67	.69	.34	-1.38	-.03

Ratios	Descriptive Statistics						
	Hotels	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
	EIHL	4	7.07	2.30	1.15	4.56	9.81
	ROHL	4	2.31	.40	.20	1.89	2.85
Total	16	2.40	3.59	.90	-4.27	9.81	

Table 11: Assumption # 1 Normality of the Data

Ratios	N	Normal Parameters		Most Extreme Differences			Test Statistic	Asymp. Sig. (2-tailed)
		Mean	Std. Deviation	Absolute	Positive	Negative		
Return on Assets	16	-.869	4.933	.302	.187	-.302	.302	0.000
Return on Investment	16	3.319	5.016	.259	.159	-.259	.259	0.005
Net Profit Ratio	16	-10.072	25.830	.295	.209	-.295	.295	0.001
Earnings per Share	16	-1.437	5.006	.279	.155	-.279	.279	0.002
Debt Equity Ratio	16	4.461	8.810	.403	.403	-.310	.403	0.000
Financial Leverage	16	.745	1.082	.257	.138	-.257	.257	0.006
Interest Coverage Ratio	16	2.403	3.593	.138	.138	-.084	.138	0.200

Table 12: Assumption # 2 Homogeneity of Variance

Ratios	Test of Homogeneity of Variances			
	Levene Statistic	df1	df2	Sig.
Return on Assets	3.535	3	12	.048
Return on Investment	4.948	3	12	.018
Net Profit Ratio	5.182	3	12	.016
Earnings per Share	3.691	3	12	.043
Debt Equity Ratio	7.217	3	12	.005
Financial Leverage	65.895	3	12	.000
Interest Coverage Ratio	3.086	3	12	.068

Table 13: Kruskal-Wallis Test and ANOVA

Ratios	Test	p-value	Significant or not
Return on Assets	Kruskal-Wallis Test	0.079	Accept Null Hypothesis
Return on Investment	Kruskal-Wallis Test	0.095	Accept Null Hypothesis
Net Profit Ratio	Kruskal-Wallis Test	0.072	Accept Null Hypothesis
Earnings per Share	Kruskal-Wallis Test	0.085	Accept Null Hypothesis
Debt Equity Ratio	Kruskal-Wallis Test	0.003	Reject Null Hypothesis
Financial Leverage	Kruskal-Wallis Test	0.026	Reject Null Hypothesis
Interest Coverage Ratio	ANOVA	0.002	Reject Null Hypothesis

To analyse the data and to test hypotheses ANOVA Test conducted. In addition to this, Kruskal - Wallis Test is also applied where ANOVA is not applicable. According to the result of Kruskal – Wallis test, there is significant difference among the profitability ratios of these hotel chains whereas, in the next case null hypothesis is rejected showing that there is a association between debt-equity and profitability of the companies.

### **Findings and Recommendations**

It is found that EIHL is showing consistent performance during the period of the study. Still it needs to improve its debt-equity structure to increase return to the owners. The HLVL requires to reduce the amount of debt to the extent possible to have sound liquid position. However, the ROHL is also showing consistency except one year deficit. The IHCL is advised to work more in the direction of profit.

The findings of the study will definitely contribute to the Indian hospitality industry by providing some groundwork to take better capital structure decisions to avail the maximum advantage of favourable financial leverage.

### **Limitations & Scope for Further Research**

- 1) The study discusses only the capital structure which comprises only a small part of the financial structure which includes only long term sources of funds.
- 2) The study is based on the secondary data of hotel chains collected through websites, annual reports, magazines, journals, articles, newspapers and different books on Financial Management. So there is a limitation of using secondary data only.

In addition, the findings of this study imply areas that need further study. The scope of this study covers the operations of only four leading hotel chains of India and that also for only short duration of time. Giving enough time and resources, it is possible to attempt the research which could cover many more hotel chains not only of India but at the international level also. Time duration of research can also be increased and study may be strengthened by considering financial structure of these hotel chains for more trusted recommendations.

### **Conclusion**

It is concluded that Except EIHL, the other three hotel chains are required first to concentrate on profit by managing its capital structure effectively. HLVL has to decrease the debt proportion to

manage its liquidity. However, IHCL and ROHL have gradually shown progressive approach.

### **References**

1. Andrew Sudhir, "Hotel Front Office: Training Manual" First Edition, New Delhi, Tata McGraw Hill Publishing Co. Ltd., 2006, p. 12.
2. Chandra Prasanna, "Financial Management: Theory and Practice", Sixth Edition, New Delhi, Tata McGraw Hill Publishing Company Ltd., 2007, p. 505 & 541
3. Khan M. Y. and Jain P. K., "Financial Management: Text, Problems and Cases", Fourth Edition, New Delhi, Tata McGraw Hill Publishing Company Ltd., 2006, p.15.1 & 16.1.
4. Kothari C. R., "Research Methodology: Methods and Techniques", Second Revised Edition, New Delhi, New Age International (p) Ltd., [c 2004], p. 1.
5. Kuchhal S. C., "Financial Management: Analytical and Conceptual Approach", Tenth Edition, Allahabad, Chaitanya Publishing House, 1988, pp. 358-378.
6. Maheshwari S. N., "Management Accounting and Financial Control", Fifteenth Edition, New Delhi, Sultan Chand & Sons, 2006, p. d-49.
7. Michael V. P., "Research Methodology in Management", Fifth Revised Edition, Mumbai, Himalaya Publishing House, 2000, p. 2.
8. Murugan M. Sakthivel & Srinivasan N. P., "Accounting for Management", First Revised Edition, New Delhi, S. Chand, p.200
9. Pandey I. M., "Management Accounting", Third Revised Edition, New Delhi, Vikas Publishing House (p) Ltd., 2006, p.108.
10. Walker John R., "Introduction to Hospitality", Second Edition, New Delhi, Pearson Education, 2006, p. 34.
11. Zikmund William G., "Business Research Methods", Second Edition, New York, the Dryden Press, 1987, p. 6.
12. Zulfikar Mohammed, "Introduction to Tourism and Hotel Industry", First Edition, New Delhi, Vikas Publishing House (p) Ltd., 2005, p. 68.

### **Websites**

1. [www.theindianhotels.com](http://www.theindianhotels.com)
2. [www.theleela.com](http://www.theleela.com)
3. [www.eihltd.com](http://www.eihltd.com)
4. [www.royalorchidhotels.com](http://www.royalorchidhotels.com)

---

## Authors' Profile

### Ms. Priti Makhecha

Research Scholar  
Department of Business Studies  
Sardar Patel University

preetipits@gmail.com

### Dr Kamini Shah

Associate Professor  
Department of Business Studies  
Sardar Patel University

kaminivvn@gmail.com





## Analysis of the Awareness, Behavior and Perception of the Banking Customers about the Cyber Security

Dr. Manish B. Raval, Dr. Ashish B. Gorvadiya

### Abstract

The banking industry is exposed to a large number of cyber attacks on the data privacy and security. The frauds, which can be seen in online payment, ATM, electronic cards, net banking transactions, etc. are the news of everyday. The main aim of such frauds is either of gaining confidential data from the bank or to steal money from the bank. Although tight security measures are implemented, these attackers are successful in breaching the security layers and causing huge financial damage to the individuals or banks. The aim of this paper is to make the analysis of awareness, behavior and perception of the banking customers about the cyber crime and cyber security. In order to make the analysis of the awareness, behavior and perception of the banking customers about the cyber security, the researchers have used 't' Test and Analysis of Variance to test the responses of the respondents.

**Keywords:** Banking Industry, Cyber Frauds, Cyber Security, Banking Customers, Cyber Crime)

### Introduction:

The development of technology has been very fast these days. The implementation of technology in the banking sector is so much that the banking activities cannot be thought of without the use of technology. Technology has brought so much ease and convenience in the banking process, but at the same time, technology has brought the challenges also. The increasing number of cases of frauds and cyber crime using technology shows us the challenges brought by the technology.

The banking industry is exposed to a large number of cyber attacks on the data privacy and security. The frauds, which can be seen in online payment, ATM, electronic cards, net banking transactions, etc. are the news of everyday. The main aim of such frauds is either of gaining confidential data from the bank or to steal money from the bank. Although tight security measures are implemented, these attackers are successful in breaching the security layers and causing huge financial damage to the individuals or banks.

The aim of this paper is to make the analysis of perception of the banking customers about the cyber crime and cyber security. We want to make the analysis of the effects of cyber crime and cyber security on the behavior of the banking customers.

### Review of Literature:

Zahoor, Z., Moin, U., Karuna, S., (2016), have made the analysis of the challenges in privacy and security in banking sector and related countermeasures. The authors say that banking sector is prone to the cyber crime. The attackers apply various techniques for breaching the security for the purpose of either stealing the confidential data or to steal the money. The authors have described various techniques used by the intruders for cyber crime. They have also described various measures that are being taken or can be taken by the banks as well as by the users to prevent the cyber crime.

Kaur, N., (2015), has written an article on online banking system attacks and its countermeasures. In this article, the author has mentioned various ways through which the cyber criminals attack the online banking system to damage the individuals and the banks. The author has also explained various measures for prevention from cyber attacks.

Bendovschi, A., (2015), has presented an article on cyber attacks. The author has explained the trend of cyber attacks, pattern of cyber attacks and the measures that can be taken against the cyber attacks. In this article, the author has explained the different patterns by which the attackers breach the cyber security and cause the harm to the individuals.

Ali, L., Ali, F., Surendran, P., and Thomas, B., (2016), have presented an article on cyber threats in the banking sector. They have made the analysis of the effects of cyber threats on the behavior of the customers of e-banking services. They have presented various recommendations in order to improve the security layers in the e-banking services.

Rajendran, V., (2018), in his article, explains that technology is vital in banking process. He further says that banking in India is redefined with IT as the Sine Qua Non in banking industry. He suggests that rather than looking at the computerization, the banks must focus on the threats and vulnerabilities associated with the computerization. IT security has become the major challenge for the banks.

### **Research Methodology:**

The following methodology of the research is used in this article:

- Title of the Research Paper:

This research paper is titled as:

“Analyzing Perceptions of Banking Customers of Saurashtra Region on Cyber Security”

- Scope of the Present Study:

This research work focuses on the analysis of the perceptions of the banking customers of Saurashtra Region on the Cyber Security. So, the scope of this study is only the banking customers of Saurashtra Region who use the online banking system for their banking transactions.

- Population and Sample of the Study:

As this research work focuses on the banking customers of Saurashtra Region who use online banking services, the population for this study is the Banking Customers of entire Saurashtra Region. For these customers, in order to collect the data about their perceptions on cyber security, we had prepared a questionnaire through Google Forms and the same was circulated using social media. .... responses were received through Google forms. So the sample for this study is..... customers.

- Type of the Study:

This research work focuses on the analysis of the perceptions of banking customers of Saurashtra Region who use online banking services. So, this is an Analytical study based on primary data.

- Method of Data Collection:

In order to analyze the perceptions of banking customers of Saurashtra Region who use online banking services, we have prepared the questionnaire using Google Forms. The same was circulated using social media. Responses were collected in such a manner. So, this study is based on the primary data collection.

### **Objectives of the Study:**

Following are the main objectives of this study:

(1) Analyzing the awareness of the banking customers about the cyber threats in online banking transactions.

(2) Analyzing the effects of cyber threats on the behavior of banking customers.

(3) Analyzing the perceptions of banking customers on cyber security and cyber threats.

- Tools and Techniques of Analysis:

The data collected using Google forms is analyzed using 't' test and Analysis of Variances.

### **Significance of the Study:**

This study will prove to be significant for the private sector and public sector banks because this will give important guideline for improving security layers in online banking transactions. The study is also useful for the customers because it will spread more awareness about the cyber threats among the customers using online banking services. The study will also be useful for the central and state governments for receiving suggestions on improving internet infrastructure.

### **Limitations of the Study:**

Following are the limitations of the study:

(1) This study is based on primary data collection, so all the limitations of primary data are applicable to this study also.

(2) This study covers the responses of the customers of Saurashtra Region only, so, the findings from this study may not be generalized for the other regions of the country.

### **Analysis and Interpretations:**

a. Awareness, Behaviour and Perception among different Gender

Null Hypothesis (H<sub>0</sub>):

1) There is no significant difference in awareness for cyber security among different gender.

2) There is no significant difference in behaviour for cyber security among different gender.

3) There is no significant difference in perception for cyber security among different gender.

**Table – 1**

**A Table Showing Descriptive Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Awareness	Male	40	21.53	3.672	.581
	Female	124	22.84	3.005	.270
Behaviour	Male	40	46.73	6.672	1.055
	Female	124	47.63	6.338	.569
Perception	Male	40	62.93	7.304	1.155
	Female	124	66.56	7.688	.690

**Table – 2**

**A Table Showing Result of Test Statistics**

Factor	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		Status of H <sub>0</sub>
						Lower	Upper	
Awareness	-2.273	162	.024	-1.314	.578	-2.455	-.172	Rejected
Behaviour	-.774	162	.440	-.904	1.167	-3.209	1.401	Accepted
Perception	-2.634	162	.009	-3.640	1.382	-6.368	-.911	Accepted

Above given Table – 2 shows the results of Test Statistics. It can be seen from the table that the first hypothesis (There is no significant difference in awareness for cyber security among different gender.) is rejected. It means that there is significant difference in the awareness of cyber security among the different gender. The table also shows that the second hypothesis (There is no significant difference in behaviour for cyber security among different gender.) and the third hypothesis (There is no significant difference in perception for cyber security among different gender.) are accepted. It means that there is no significant difference in the behavior and perception for cyber security among the different gender.

#### **b. Awareness, Behaviour and Perception due to Education Level of the respondents**

##### **Null Hypothesis (H<sub>0</sub>):**

- 4) There is no significant difference in awareness for cyber security due to education level of the respondents.
- 5) There is no significant difference in behaviour for cyber security due to education level of the respondents.
- 6) There is no significant difference in perception for cyber security due to education level of the respondents.

**Table – 3 A Table Showing Descriptive Statistics**

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Score of Awareness	Graduation	94	22.35	3.182	.328	21.70	23.00	15	26
	Post Graduation	46	22.87	3.052	.450	21.96	23.78	15	27
	M. Phil./Ph. D.	24	22.50	3.730	.761	20.92	24.08	15	26
	Total	164	22.52	3.219	.251	22.02	23.01	15	27
Score of Behaviour	Graduation	94	47.38	6.434	.664	46.07	48.70	35	62
	Post Graduation	46	46.93	6.741	.994	44.93	48.94	35	61
	M. Phil./Ph. D.	24	48.42	5.793	1.182	45.97	50.86	39	60
	Total	164	47.41	6.412	.501	46.42	48.40	35	62
Score of Perception	Graduation	94	65.14	7.939	.819	63.51	66.76	45	78
	Post Graduation	46	66.96	7.665	1.130	64.68	69.23	45	78
	M. Phil./Ph. D.	24	65.33	7.044	1.438	62.36	68.31	51	77
	Total	164	65.68	7.735	.604	64.48	66.87	45	78

Table – 4 A Table Showing Result of Test Statistics

		Sum of Squares	df	Mean Square	F	Sig.	Status of H <sub>0</sub>
Score of Awareness	Between Groups	8.313	2	4.156	.398	.672	Accepted
	Within Groups	1680.632	161	10.439			
	Total	1688.945	163				
Score of Behaviour	Between Groups	34.778	2	17.389	.420	.658	Accepted
	Within Groups	6666.850	161	41.409			
	Total	6701.628	163				
Score of Perception	Between Groups	105.423	2	52.712	.880	.417	Accepted
	Within Groups	9646.449	161	59.916			
	Total	9751.872	163				

In order to check the awareness, behavior and perception of the respondents, the respondents were classified among different groups on the basis of their education viz., Graduates, Post Graduates and M. Phil/ Ph. D. The results of Test Statistics in the Table – 4 show that the entire three hypotheses were accepted. It means that there is no significant difference in the awareness, behavior and perception of the respondents due to their education level. The respondents of all the educational level under study have similar awareness, behavior and perception for cyber security.

#### c. Awareness, Behaviour and Perception due to Location of the respondents

##### Null Hypothesis (H<sub>0</sub>):

- 7) There is no significant difference in awareness for cyber security due to local of the respondents.
- 8) There is no significant difference in behavior for cyber security due to location of the respondents.
- 9) There is no significant difference in perception for cyber security due to location of the respondents.

Table – 5 A Table Showing Descriptive Statistics

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Score of Awareness	Rural	6	21.50	3.146	1.285	18.20	24.80	18	25
	Semi Urban	9	22.33	3.674	1.225	19.51	25.16	15	26
	Urban	149	22.57	3.209	.263	22.05	23.09	15	27
	Total	164	22.52	3.219	.251	22.02	23.01	15	27
Score of Behaviour	Rural	6	52.17	1.169	.477	50.94	53.39	51	54
	Semi Urban	9	42.67	7.246	2.415	37.10	48.24	35	55
	Urban	149	47.50	6.333	.519	46.48	48.53	35	62
	Total	164	47.41	6.412	.501	46.42	48.40	35	62
Score of Perception	Rural	6	67.33	5.391	2.201	61.68	72.99	59	75
	Semi Urban	9	60.00	9.849	3.283	52.43	67.57	45	71
	Urban	149	65.95	7.584	.621	64.73	67.18	45	78
	Total	164	65.68	7.735	.604	64.48	66.87	45	78

Table – 6 A Table Showing Result of Test Statistics

		Sum of Squares	df	Mean Square	F	Sig.	Status of H <sub>0</sub>
Score of Awareness	Between Groups	6.935	2	3.468	.332	.718	Accepted
	Within Groups	1682.010	161	10.447			
	Total	1688.945	163				
Score of Behaviour	Between Groups	339.546	2	169.773	4.296	.015	Rejected
	Within Groups	6362.082	161	39.516			
	Total	6701.628	163				
Score of Perception	Between Groups	317.867	2	158.934	2.712	.069	Accepted
	Within Groups	9434.004	161	58.596			
	Total	9751.872	163				

The responses given by the respondents were tested on the basis of their geographical locations to analyze their awareness, behavior and perception for the cyber security. The result of Test Statistics given in the Table – 6 shows that the hypothesis, “There is no significant difference in behavior for cyber security due to location of the respondents” is rejected. It means that there is significant difference in the behavior of the respondents of rural area, semi urban area and urban area. As far as the awareness and perceptions are concerned, there is no significant difference among the respondents of rural area, semi-urban area and urban area.

**Findings:**

On the basis of statistical analysis, following findings can be extracted.



- There is significant difference in the awareness of cyber security among the different gender.

- There is no significant difference in the behavior and perception for cyber security among the different gender. It means that both male and female respondents have similar behavior and perception for the cyber security.

- There is no significant difference in the awareness, behavior and perception of the respondents due to their education level. The respondents of all the educational level under study have similar awareness, behavior and perception for cyber security.

- There is significant difference in the behavior of the respondents of rural area, semi urban area and urban area. It means that the respondents living in rural area, semi urban and urban area have significantly different behavior.

- There is no significant difference in the awareness and perception for cyber security among the respondents of rural area, semi-urban area and urban area.

#### **Conclusion:**

The banking industry is exposed to a large number of cyber attacks on the data privacy and security. The frauds, which can be seen in online payment, ATM, electronic cards, net banking transactions, etc. are the news of everyday. The main aim of such frauds is either of gaining confidential data from the bank or to steal money from the bank. Although tight security measures are implemented, these attackers are successful in breaching the security layers and causing huge financial damage to the individuals or banks. The aim of this paper is to make the analysis of awareness, behavior and perception of the banking customers about the cyber crime and cyber security. From the analysis, it could be concluded that male and female respondents have difference in the awareness about cyber security but their behavior and perception about the cyber security are similar. The respondents of all education level have similar awareness, behavior and perception about the cyber security. On the basis of location of the respondents, there can be seen the difference in the behavior of the respondents about the cyber security.

#### **References:**

- 1) Zahoor, Z., Moin, U., Karuna, S., (2016), "Challenges in privacy and security in banking sector and related countermeasures", International Journal of

Computer Application, Vol., 144, No., 3, PP., 24-35

- 2) Kaur, N., (2015), "A survey on online banking system attacks and its countermeasures", International Journal of Computer Science and Network Security, Vol., 15, No., 3, PP., 57-61
- 3) Bendovschi, A., (2015), "Cyber-Attacks – Trends, Patterns and Security Countermeasures", Procedia Economics and Finance, Vol., 28, PP., 24-31
- 4) Ali, L., Ali, F., Surendran, P., and Thomas, B., (2016), "The effects of cyber threats on customer's behavior in e-banking services"
- 5) Rajendran, V., (2018), "Banking on IT's Security", Bank Quest, Vol. 89, No., 01, PP., 12-17

#### **Dr. Manish B. Raval**

Assistant Professor  
SDRB Mahila Home Sci., Lt.  
M.J.Kundaliya Eng. Medium Mahila  
Commerce College – Rajkot

manishraval810@gmail.com

#### **Dr. Ashish B. Gorvadiya**

Supervisor Instructor: Employability Skill  
Government ITI – Rajkot

ashish91.gorvadiya@gmail.com

## Organizational Performance Improvement with Value Chain Analysis in Food and Beverage Industry in Gujarat State: From Managerial Prospective

B.Hariharan

### Abstract

The supply chain of the industry involves five stages of inputs, production, procurement, processing and retailing. Food processing industry is a key step in the value chain and it is broadly categorized into two segments (1) Primary processing, which includes basic steps of processing like cleaning, grading, sorting, packing etc. to make the products fit for human consumption. Finished products in this case include packed milk, fruits & vegetables, milled rice, flour, pulses, spices and salt largely unbranded and (2) Value-added processed food (secondary/tertiary processing), that covers products of dairy industry and other bakery products fruits which are processed, different kinds of vegetables, various juices, sweet jams, sour and sweet pickles, different types of chocolates and beverages which contain some quantity of alcohol. These products undergo higher level of processing to convert into new or modified products. This is estimated to account for around 35 to 40% of the total processed food and mostly falls in the organized sector. This research effort examines the relationship between managing a company's value chain and the effect this has on the company's performance.

### Introduction

A value chain is a collection of activities undertaken by a company operating in a particular industry to provide a valuable product (i.e. good and/or service) to the customer. The theory was first presented by Michael Porter in his 1985 best-seller, *Competitive Advantage: Creating and Sustaining Superior Performance*. —The theory of the value chain was focused on the companies' process perspective, the concept of seeing a production (or service) enterprise as a network composed of subsystems of inputs, phases of conversion and outputs. Inputs, processes of conversion and production include the procurement and consumption of resources—cash, energy, supplies, machinery, structures, property, management and administration. How value chain operations are performed determines costs and affects profits. Through the strategic strategy model developed by Porter as early as 1979, the idea of value chain as decision support tools has been applied. In Porter's value chains, the primary activities are categorized as Inbound Logistics, Operations, Outbound Logistics, Marketing and Sales, and Service. Secondary operations include recruitment, administration of human resources, development of technology and services. The emergence of global value chains (GVCs) in the late 1990s, according to the OECD Secretary-General, provided a catalyst for accelerated change in the international investment and trade landscape, with significant, far-reaching consequences for both governments and businesses. Companies execute analysis of the value chain by analyzing any phase in processing required to create a product. The overall objective is to provide maximum value for the lowest total cost necessary. The value chain analysis has many advantages, all of which result in the ability of a company to understand and optimize the activities that lead to its competitive advantage and high profit levels.

### Literature Review

Bourlakis, M., Maglaras, G. and Fotopoulos, C. (2012) in the paper titled *Creating a Best value supply chain-Empirical evidence from the Greek food chain* conducted research with a sample of 1121 respondents. The research purpose was to examine the heterogeneity among the value outcomes. This will be examined among the Greek food chain companies. In this companies the members who give their contribution for creating the value and thereby complying with the value chain processes were examined. However the members who could not give their best performance for enhancing the benefits of value chain were also examined. Further it was brought to the notice that primary producers could not achieve expected outcomes of value chain but the catering firms exceeded the expectations and arrived at the results which increased their efficiency among the value chain processes observed at the food chains.

Doherty, B. and Huybrechts, B. (2013) in the paper titled *Connecting producers and consumers through fair and sustainable value chains*.

This paper seeks to pinpoint the role played by social enterprises in the growth and mainstreaming of fair trade. A crucial role is played by social enterprises in establishing fair trade in the mainstream.

Acharya Rohit (2014) in the paper titled An AHP Model Approach to Supply Chain Flexibility: A Case Study of Indian FMCG Firm, explained about Supply chain flexibility, the ability of any organization to respond to the changes that occurs frequently in the surrounding environment. The Dimensions of Supply Chain Flexibility is Product Flexibility, Volume flexibility, Transshipment Flexibility, New Product Development /Launch Flexibility etc.

Manning, L. (2015) in the paper titled Determining value in the food supply chain explains that Stakeholder theory considers the primary role of organizations in terms of being profit focused or value focused. When considering the perception of value it is important to consider leader pricing. The strategy in which very minimal prices are set by retailers to entice the customers so that they come for frequent purchases in to the stores and also will give their contribution for purchase of profitable goods which are highly impulsive is known as leader pricing strategy.

luai Jraisat (2016) in the paper titled A network perspective and value added tasks: the case of Agri-food value chain conducted the Structural Equation Modeling (SEM) on the survey results derived by 200 respondents, explained about Network perspective in the value chain of agro-food products and described about value added tasks for the performance of value chain in the company.

Devaux Andre (2017) in the paper titled Agricultural innovation and inclusive value-chain development: a review, explained about agriculture innovations, food safety, agriculture research and the value chain development to process the functioning of the Agri-business.

J Connell, R Agarwal, S Dhir (2018) in the paper titled Global Value Chains Flexibility and Sustainability explains that Global economies are increasingly being structured through global value chains (GVCs) which account for increased

international trade, global GDP, and employment. Value chain approach includes those activities which create value for the customer in direct or indirect manner. It talks about different types of flexibilities which help in enhancement of the profit of the organization. These flexibilities are seen in the area of productions and operations, marketing, sales, finance, information communications technology and development, human resources, etc.

### Research Objective

To examine whether there is significant impact of the managerial perspectives regarding the value chain on organizational performance in Gujarat State

### Research Methodology

The sampling process has been used for the study. The samples of the population (managers who are employed in food and beverage companies across Gujarat State have been selected). The Non probability convenience sampling method has been used in the research. The sample size is of 200. The samples include the managers who are employed in food and beverage companies have been selected across Gujarat State. For the research work the primary data have been used. The primary data have been collected from the managers who are employed in food and beverage companies located in Ahmedabad, Baroda, Bhavnagar, Rajkot and Surat city in Gujarat state. For research purpose relating to the topic for collection of data from respondents the instruments used includes telephone, internet, questionnaire, interview, and mail. Survey and observation methods have been used for data collection in this research work. The topic of the research work is a theoretical topic and there is no need to have experiments.

### Research Analysis

It describes the impact of the managerial perspectives regarding the value chain on organizational performance in Gujarat State. Hence the regression technique is used to identify the impact. If the value of R<sup>2</sup> statistic is more than 0.7, then it is suggestive measure of significant impact.

## Results and Interpretations

**Table 1: Correlation & Regression Summary Statistics**

Sr. No.	Dependent Variable	Independent Variable	R Statistic	R <sup>2</sup> Statistic	Inference
1	Organizational Performance	Delivery times of products and services	0.89	0.79	Very Strong Positive Correlation & Significant Impact
2	Organizational Performance	Procurement costs	0.60	0.34	Strong Positive Correlation & Insignificant Impact
3	Organizational Performance	Information technology (ICT) Development	0.76	0.62	Strong Positive Correlation & Insignificant Impact
4	Organizational Performance	Human Resource activities	0.85	0.72	Very Strong Positive Correlation & Insignificant Impact
5	Organizational Performance	Firm infrastructure	0.88	0.75	Very Strong Positive Correlation & Significant Impact

### Interpretation

1. The R-value: shows the direction and the strength of the correlation. The bigger the value the more significant it is. In this case, the Pearson correlation coefficient ( $r = 0.89$ ) shows a very strong positive correlation between the variables under investigation. This means the null hypothesis is rejected. Thus there is significant relationship between organizational performance and managerial perspective with regards to Delivery times of products and services. Further R<sup>2</sup> statistic helps in explaining variance in the dependent variable (Organizational Performance). Based on the results the (R square) value is 0.79. This means that the independent variable (Delivery times of products and services) predicts the dependent variable (Organizational Performance) by 79%, thus, leaving out 21% (100% - 79%) unexplained. This means that null hypothesis is rejected. Thus there is significant impact of the managerial perspectives with regards to Delivery times of products and services on organizational performance in Food and Beverage companies in Gujarat State.

2. The R-value: shows the direction and the strength of the correlation. The bigger the value the more significant it is. In this case, the Pearson correlation coefficient ( $r = 0.60$ ) shows a moderate positive correlation between the variables under investigation. This means the null hypothesis is accepted. Thus there is no significant relationship between organizational performance and managerial perspective with regards to procurement costs. Further R<sup>2</sup> statistic helps in explaining variance in the dependent variable (Organizational Performance). Based on the results the (R square)

value is 0.34. This means that the independent variable (Procurement Costs) predicts the dependent variable (Organizational Performance) by 34%, thus, leaving out 66% (100% - 34%) unexplained. This means that null hypothesis is accepted. Thus there is no significant impact of the managerial perspectives with regards to Procurement Costs on Organizational Performance in Food and Beverage companies in Gujarat State.

3. The R-value: shows the direction and the strength of the correlation. The bigger the value the more significant it is. In this case, the Pearson correlation coefficient ( $r = 0.76$ ) shows a strong positive correlation between the variables under investigation. This means the null hypothesis is rejected. Thus there is significant relationship between organizational performance and managerial perspective with regards to Information Communication Technology and Development. Further R<sup>2</sup> statistic helps in explaining variance in the dependent variable (Organizational Performance). Based on the results the (R square) value is 0.62. This means that the independent variable (Information Communication Technology and Development.) predicts the dependent variable (Organizational Performance) by 62%, thus, leaving out 38% (100% - 62%) unexplained. This means that null hypothesis is accepted. Thus there is no significant impact of the managerial perspectives with regards to Information Communication Technology and Development on Organizational Performance in Food and Beverage companies in Gujarat State.

4. The R-value: shows the direction and the strength of the correlation. The bigger the value the more significant it is. In this case, the Pearson correlation



coefficient ( $r = 0.85$ ) shows a very strong positive correlation between the variables under investigation. This means the null hypothesis is rejected. Thus there is significant relationship between organizational performance and managerial perspective with regards to Human Resource Activities. Further  $R^2$  statistic helps in explaining variance in the dependent variable (Organizational Performance). Based on the results the (R square) value is 0.72. This means that the independent variable (Human Resource Activity) predicts the dependent variable (Organizational Performance) by 72%, thus, leaving out 28% ( $100\% - 72\%$ ) unexplained. This means that null hypothesis is rejected. Thus there is significant impact of the managerial perspectives with regards to Human Resource Activities on Organizational Performance in Food and Beverage companies in Gujarat State.

5. The R-value: shows the direction and the strength of the correlation. The bigger the value the more significant it is. In this case, the Pearson correlation coefficient ( $r = 0.88$ ) shows a very strong positive correlation between the variables under investigation. This means the null hypothesis is rejected. Thus there is significant relationship between organizational performance and managerial perspective with regards to Firm's Infrastructure. Further  $R^2$  statistic helps in explaining variance in the dependent variable (Organizational Performance). Based on the results the (R square) value is 0.75. This means that the independent variable (Firm's Infrastructure) predicts the dependent variable (Organizational Performance) by 75%, thus, leaving out 25% ( $100\% - 75\%$ ) unexplained. This means that null hypothesis is rejected. Thus there is significant impact of the managerial perspectives with regards to Firm Infrastructure on Organizational Performance in Food and Beverage companies in Gujarat State.

### Conclusion

A company's competitive position can be known when the company is able to create either the sustainable competitive advantage or mere competitive advantage. If the company is able to create the competitive advantage then we can see that the company performs in a better way as compared to its competitor firms or its rivals. However if the sustainable competitive advantage is created by the firm, then the thing will happen that their rivals will not be able to imitate them in terms of the outcomes they derive. A proper and coordinated value chain in the organization helps in creation of sustainable competitive advantage thereby creating the superior value for the firm. The managerial perspective about the activities such as delivery times of products and services, human

resource activities and firm's infrastructure has significant impact on organizational performance of the Food and Beverage companies in Gujarat State as identified from the survey of 200 managers across major cities of Gujarat State and thus proving again and again that if value chain is properly configured, and coordinated through the variables it will definitely increase the profitability and performance of the organization.

### References

1. Bourlakis, M., Maglaras, G., & Fotopoulos, C. (2012), Creating a Best Value Supply Chain- Empirical Evidence from the Greek Food Chain. *The International Journal of Logistics Management*, 23(3), 360-382.
2. Doherty, B., & Huybrechts, B. (2013), Connecting producers and consumers through fair and sustainable value chains. *Social Enterprise Journal*, 9(1), 4-10.
3. Singh, R. K., & Acharya, P. (2014), An AHP model approach to supply chain flexibility: A case study of Indian FMCG firm. *Operations and supply chain management*, 7(2), 64-69.
4. Manning, L. (2015), Determining value in the food supply chain. *British Food Journal*, 117(11), 2649-2663.
5. Jraisat, L. (2016), A network perspective and value added tasks: the case of Agri-food value chain, *Asia Pacific Journal of Marketing and Logistics*, 28(2), 350-365.
6. Devaux Andre (2017) in the paper titled Agricultural innovation and inclusive value-chain development: a review (2017), *Journal of Advances in Management Research*, 14(3), 313-331.
7. Connell, J., Agarwal, R., & Dhir, S. (Eds.). (2018). *Global Value Chains, Flexibility and Sustainability*. Springer.
8. Devaux, A., Torero, M., Donovan, J., & Horton, D. (2018). Agricultural innovation and inclusive value-chain development: a review, *Journal of Agribusiness in Developing and Emerging Economies*, 8(1), 99-123
9. *Research Methodology (Methods and Techniques)* by C.R. Kothari, New Age International (P) Limited, Publishers, ISBN (13) : 978-81-224-2488-1
10. *Marketing Research, An Applied Orientation* by Naresh K. Malhotra, Pearson Education, ISBN – 81-7808-368-X
11. *Marketing Research Concept and Cases* by Donald R. Cooper, Pamela S. Schindler, Tata Mcgraw Hill, and ISBN-13: 978-0-07-060091-1, ISBN-10: 0-07-060091-0

### Author's Profile

#### B. Hariharan

Research Scholar,  
Gujarat University.

hariharan.boddepalli@gmail.com



## **A ROLE OF MODERN PEDAGOGY WITH INNOVATIVE STRATEGIES**

**Pratima R Chaudhari**

### **Abstract**

Now a day's English language plays an important role in each and every field. However we describe what language is? Language is a medium of communication. Communication is the simple process to transmitting of message and receiving of message between two or more individuals. Students from various cultures feel hard to learn English as a second language with its proficiency. The desire of students to learn English language learning needs some solution. Language teachers across the world regard themselves as educators and they always put their efforts on innovative strategies in pedagogy. As a solution in this research paper researcher focused on innovative learning strategies represented by teach taught staff for modern pedagogy. This will help the graduate level students to overcome from the difficulties with learning English.

**Key words:** Modern pedagogy, communication, innovative learning strategies

### **Introduction:**

English is inherently a borrowing and an ever expanding language which the accidents of history have made the most important language for wider communication and most useful to study. Today, English has been spreading around the world making itself the second largest language of the world. The importance of English as means of international communication is recognized by all over the world. Today it is difficult to estimate the number of people in this world who have acquired an adequate working knowledge of English.

### **English Language in Gujarat:**

Where a foreign language is used in a multilingual country like India, it has very sensitive and complex role to play. English, being global language is an essential part of languages used in Gujarat. But, in order recognize the status or role of English language in culture and education exchanges in Gujarat or any other region; first we have to see whatever it plays the role of second language or foreign language only. In India English is taken more as second language rather than foreign language. It may be the third or fourth language introduced to the children in the school. All these considerations affect the English language performance of Gujarat states. Looking at it from a learner's point of view, the exposure to English is there to a great extent newspapers, sign boards, television radio, internet and mobile phone etc. It acts as a link with outside cultures. In highly culture bound region like Gujarat, where the speakers of other regional languages are very less in numbers, as exposures to any other languages but Gujarat does not become die hard necessity for majority of population.

In metropolitan city where all cultures co-exist the exposure to other languages are easily available and at the same time the degree of necessity also differ. So, actually language learning can't be totally detached from the surrounding of the learner when the real exposure is not there we try to compensate this limited exposure with fake classroom situation. However, now it is being thought very seriously to introduce English language teaching to the Gujarati learners. At learnt, as a second language through innovative learning strategies represented by teach taught staff for modern pedagogy. This will help the graduate level students to overcome from the difficulties with learning English. Through these the English language can become more efficient.

### **The Need for the Present Study:**

Though, the students are learnt to English and grammatical item at the school and secondary level of educations, the outcomes of the students at the graduation level is very poor. They are unable to express even simple ideas or views in their own sentences. Educators and researchers try hard to present various innovative techniques for the teachers as well as students.

So students can cope up with the problem of learning English as a second language. Innovative learning strategies represented by teach taught staff for modern pedagogy which has opened the door for innovative strategies to encouraging students to speak in second language during learning in the classroom. By observation it is also expected that the study will result in the identifying the speaking problems of the college students.

### **OBJECTIVES OF STUDY**

- To enhance students speaking skills.
- To learn the use of small and complex sentences as a second language learner.
- To cope up with the fear being a second language learner.
- To enhance confidence among students to face viva-voice and to give presentation.

### **RESEARCH METHOD**

For this study researcher focused on analytical study.

### **ANALYSES OF THE STUDY:**

This modern era known as a technological era in hand to hand English language is becomes globalized. Students as a second language learner faced many problems while speaking English in the classroom as well as outside of the classroom. As a result researcher analyzed three innovative strategies for modern pedagogy represented by teach taught staff among ten. And try to provide plat form to the second language learner to speak in the classroom as well as prepare them for practical terms.

#### **1. Crossover learning**

Leaning in informal settings, such as industrial visit and after –college, can link educational content with issues that matter to learners in their lives. These association works in both directions. Learning in schools and colleges can be enriched by experiences from day to day life informal learning can be depended by adding questions and knowledge from the classroom. These joined experiences create further interest and desire to learn.

Researcher found that this method is for teacher to asked and discuss the question in the classroom, then for learners to explore that question on a industrial visit or filed trip, collection of photos or take notes

as a proof, then share their outcomes back in the class to produce individual or team answered. This crossover learning experiences feat the strengths of both environments and give learners with reliable and brainstorming for learning.

#### **2. Learning through Argumentation**

This is the method which is mostly used in science and mathematician classroom for learning. Students can advanced their understanding of science and mathematics by arguing like scientist and mathematicians. Argumentation helps students attend to contrasting ideas, which can enhance their learning. It makes technical reasoning public, for all to learn. Teachers can encourage fruitful discussion in classrooms by encouraging students to ask open ended questions. When students argue in professional ways, they learn how to take turns and listen others actively. Through the professional development can help teachers to learn these strategies and cope up with the challenges, such as how to share their intellectually competency with students appropriately.

#### **3. Context- Based Learning**

Context based learning always provide us to opportunities to learn from experience. By analyzing new information in the context of at what place and at what time it occurs and we are going to relating that content with our background knowledge. We come to understand its context and meaning. We know that in classroom or lecture the context is traditionally decided to a fixed space and fixed time. By visiting a field, heritage site or memorial we can provide enriched context to the students to learn the content beyond the classroom learning.

We get number of opportunities to create context. By interacting with outside objects, surroundings, we can hold conversation, making notes and creating nearby objects. We can also understanding context by exploring the globe. Supported by educators and researcher it follows that to we should design effective sites for learning. At college, schools and websites require a depth understanding of how context build up and built by the process of learning.

### **FINDINGS OF THE STUDY:**

- Researcher comes to know that on the initial level students faced difficulties being learner and feel hesitation to take part in interaction or discussion but after gaining the awareness about the importance of

English language they become interested and participated in classroom activity.

- All students having their own learning ability to learn the things and digest the content. So, context should be very much clear of the topic for the students. Once students get the actual exposure of context and thorough knowledge regarding the topic from the specialized person they can easily understand the meaning of the context.
- In argumentation researcher found that learning through arguments enjoyed a lot in the class. To deal with the best argue they try to work hard to find out the necessary information about the topic. In a way students enhance their knowledge regarding to the subject matter simultaneously they learn at what time and how they take their turn as well as how to listen other speaker patiently so that they can argue in a professional manner.

### **CONCLUSION:**

A language teacher acts as facilitator; trainer and mentor because teachers' primary goal is to train students to become good personality and are the conscious about their holistic development. The use of these innovative learning strategies of modern pedagogy will help those students who still do not able to speak at a college level and it will also help the students to interact with others. Implementation of these strategies into the graduate level class room it will act as a platform for learner through interactive atmosphere and also prepare them for future practical term like viva- voice, to give presentation and group discussion, debate etc.

### **REFERENCE:**

1. [www.teachthought.com](http://www.teachthought.com)
2. Diagnosis and remediation of the learning difficulties of std 8th students in English grammar (March 2011)

---

## **Author's Profile**

**Ms. Pratima R Chaudhari**

Assistant Professor,  
Sardar Patel College of Administration &  
Management

piyu\_305@yahoo.com

**BANKING IN THE DIGITAL AGE: OPPORTUNITIES AND CHALLENGES****Mehul J. Mistry, Dr. Vashishthadhar J. Dwivedi****Abstract**

After the result of demonetization, digital cash has been the hotcake among the citizens of India. Digital cash and online transactions in the current market situation have a great effect on E-banking and Digital Banking. E-banking plays a major role in the present banking functionality. Electronic banking is secondary to be safe and secured, compared to physical banking. E-banking ensures qualitative banking operations compared to traditional banking. However, it has its own boundaries and challenges when we talk about security, on the contrary. The discussion throughout the paper revolves around the challenges that Indian banks are facing in term of e-banking, opportunities to increase awareness and measures adopted for safe and secure e-banking. The paper further tries to collect the primary data from questionnaires and from that base we discover current views of the customers for the online banking. In this research work we use both primary and secondary data for the research.

**KEYWORDS:**

E-banking, opportunity, challenge, Safety and Security, Measures

**INTRODUCTION**

Every day, every hour even every second the information technology is growing and it affects our regular activities like shopping, learning, surfing, banking, etc. India being a developing country has to speed up the growth of banking sector for its additional development. The banking sector services are to be improved with the help of information technology. Obviously, almost all of the banks in India are provide E-Services to their clients.

E-banking is defined as the computerized delivery of new and traditional banking products and services directly to clients through Electronic, Interactive Communication Channels.

E-banking includes the systems that enable financial institution clients, persons or businesses, to access Accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. Customers access E-banking services using an Intelligent Electronic Device, such as a Personal Computer (PC), Personal Digital Assistant (PDA), Automated Teller Machine (ATM), Kiosk, or Touch Tone Telephone.

Traditional banks offer many services to their customers, including accepting customer money deposits, providing various banking services to customers, and making loans to individuals and companies. Compare with habitual channels of offering banking services through Physical Branches, E-Banking uses the Internet to deliver traditional banking services to their customers, such as Opening Accounts, Transferring Funds, and Electronic Bill Payment.

E- Banking is the majority used feature by the citizens of India after the effect of demonetization. This feature is assumed to be one of the most elastic, modifiable and out of harm's way and sound ways of transacting among the users to bank. However, it depends on the trust that an individual has on the bank he/she is operating with.

There are different types or sectors under E-banking services. The major services offered are Internet Banking, SMS Banking, ATMs, Mobile Banking, E-Cheques, and Debit / Credit Cards.

E-banking refers to electronic banking. It's like e-business in the banking industry. Electronic banking is also known as "Virtual Banking" or "Online Banking". Electronic banking is based on banking based on information technology. Under this I.T system, banking services are delivered through a computer-controlled system. This system involves a direct interface with customers. Customers do not have to visit the bank's facilities. E-Banking now-a-days is the familiar movement here in our country. Everyone should be awake about all the upbeat and downbeat side of the technology.



## RESEARCH METHODOLOGY

### OBJECTIVES OF THE STUDY

Internet banking has become very much usual now a day's throughout the earth. It has made the banking activities easier, faster and more accessible. Now people are trying to learn more about the E-banking. The primary objective of the research is to get the current scenario of the internet banking. To add more knowledge about internet banking the following are the secondary objectives of this research study.

1. To Study the threats faced while using E-banking.
2. To Study the Opportunities of E-banking.
3. To understand the secure and safe usage of E-Banking.
4. To identify the reasons for preferring E-banking.
5. To find out the opinion of the respondents regarding the various problems of E-banking.
6. To give valuable suggestions to improve awareness and satisfaction about E-banking services.

### SOURCE OF DATA

The mode of collection of data will be based on primary as well as secondary data. Primary data

collected using the structured questionnaire and secondary data collected from various research articles and certified journal publications and E-banking related books.

### LIMITATION OF THE STUDY

- There is the possibility of further updating of this research paper because of limited sources.
- With regard to real population the example size was too little.
- Only educated people can take the advantages of this type of services, hence we cannot consider the all customers.

### METHODOLOGY

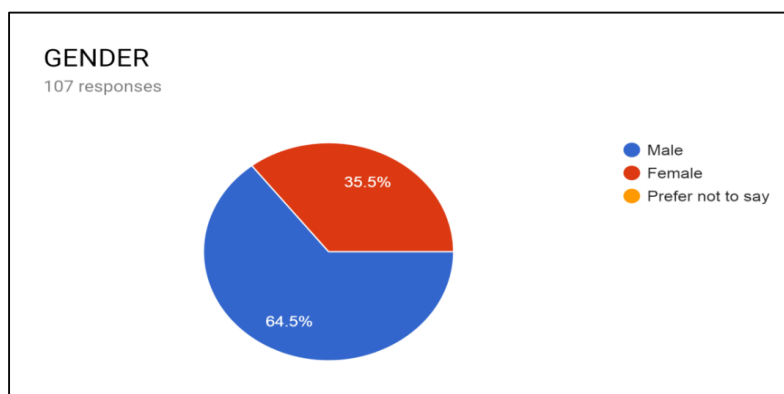
My sample size for this study is 107 respondents representing the customers of different banks. Since it was not possible to cover the whole universe in the available time period, it was necessary for me to take a sample size of 107 respondents. The sampling is random. The data was collected in the month of July, 2019.

The data collected from questionnaire will be tabulate and consider so that, the result can be presented as simple as possible. There are number of ways like Pie Charts and Graphs etc.

## OUTCOMES AND DISCUSSION

The primary data was collected using the general questionnaire method from different Age groups of people from different Educational Background and Work Environment. We have distributed questionnaire amongst 200 target audience and from that we received 107 responses from respondents.

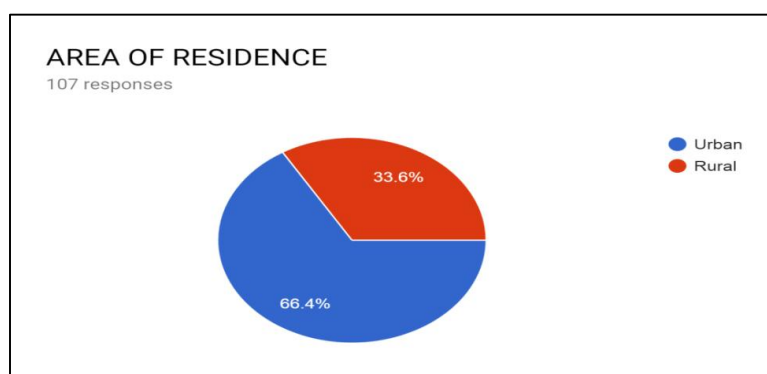
### 1. GENDER OF THE RESPONDENTS



The above pie-chart shows us that majority participation in our research study done by male candidates as compare with female candidates. We can see that 64.5% male candidates have participated in our research study out of total participants and 35.5% female candidates have also participated which is comparatively less than male candidates. We also can see that no candidates are there who prefer not to say.

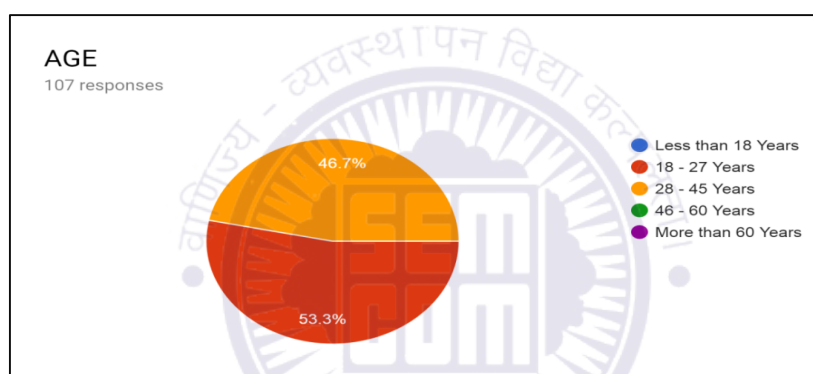


## 2. RESIDENT'S AREA OF RESPONDENTS



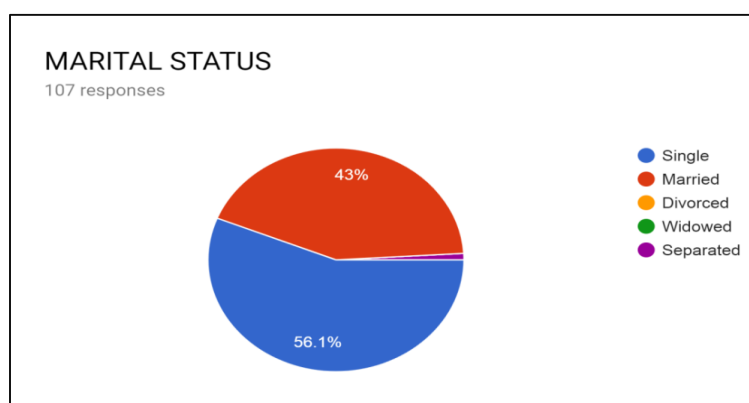
The above pie-chart shows us that majority participation in our research study come from urban area as compare with the rural area. We can see that 66.4% urban candidates have participated in our research study out of total participants and 33.6% rural candidates have also participated which is comparatively less than urban candidates. Urban and rural participants include both male and female candidates as a whole.

## 3. AGE OF THE RESPONDENTS



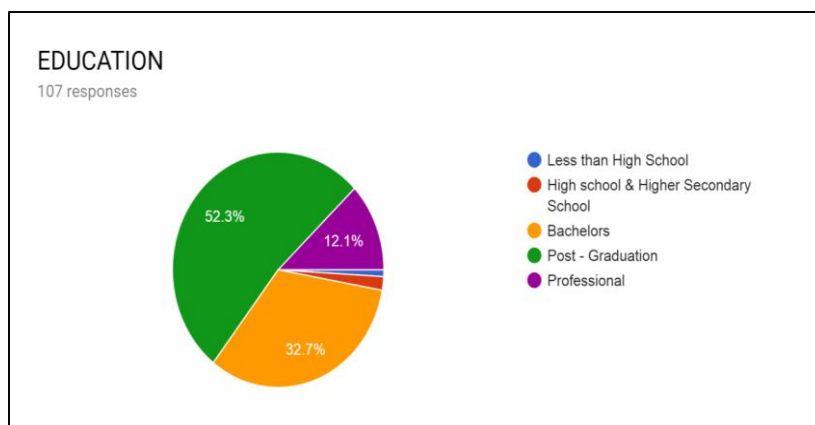
Our research study shows that we can get more participants in our study having 18 to 27 years and another group of age having 28 to 45 years. As a brief the above chart shows us that 53.3% participants are having 18 to 27 age group and 46.7% participants are having 28 to 45 age group out of total number of respondent, through this analysis researcher wants to specify that researcher does not included the less than 18 years age group and more than 46 years age group candidates.

## 4. MARITAL STATUS OF RESPONDENTS



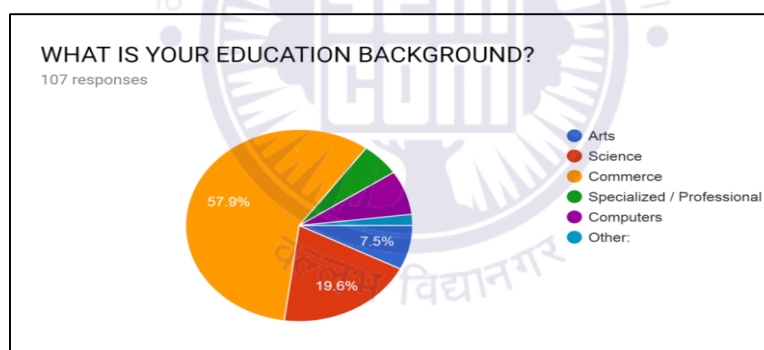
Our research study shows that 56.1% single candidate, 43% candidates are married and 1.1% separated candidates have participated in to our study. We can see that single candidates are more than married candidates. We can also see that separated candidates are too less in our research study.

## 5. EDUCATION OF RESPONDENTS



The above pie chart shows that 52.3% participants belongs from post-graduations background, 32.7% participants belongs from graduations background, 12.1% participants belongs from professional background and 2.9% participants belongs from higher secondary and primary school background. We can see that 52.3% and 32.7% participants belongs from post-graduation and graduation background in our study as per that researcher say that more educational participants have participated in to our study. This analysis will help us to fulfill the decided objective of our study.

## 6. EDUCATION BACKGROUND OF RESPONDENTS

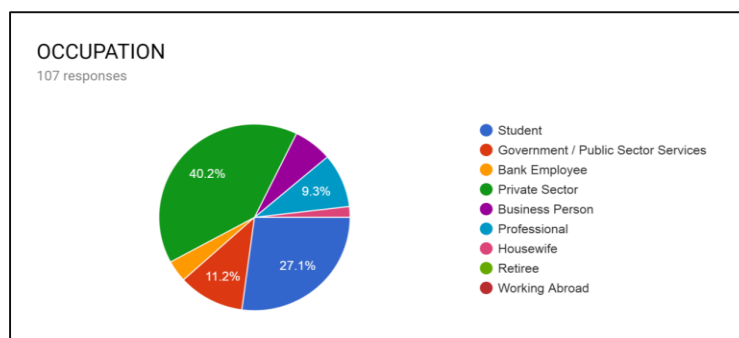


The above pie chart shows that 57.9% participants belongs from commerce background, 19.6% participants belongs from science background, 7.5% participants belongs from arts background and 15% participants belongs from remains background like professional, computers and other.

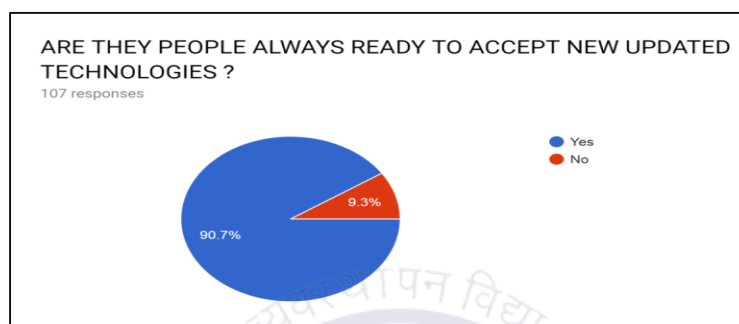
We can see that 57.9% participants belongs from commerce background in our study as per that researcher says that more educational (in terms of commerce) participants have participated in to our study. This analysis will help us to fulfill the decided objective of our study.

## 7. OCCUPATION OF THE RESPONDENTS

The pie chart given on the next page shows that 40.2% participants belongs from private sector, 27.1% are a student, 11.2% participants belongs from government sector and 9.3% participants are professional and remains background like bank employee, housewife, retiree, business person and working abroad. Majority area covered by private sector and students, through this we can imagine that those who have busy scheduled they are more focusing on E-services, because it will make smooth transaction for them.

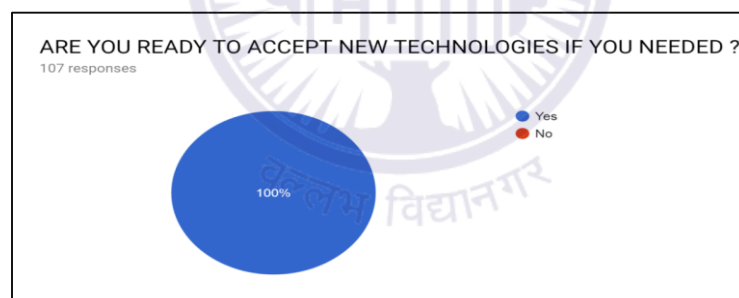


8. ARE THEY PEOPLE ALWAYS READY TO ACCEPT NEW UPDATED TECHNOLOGIES?



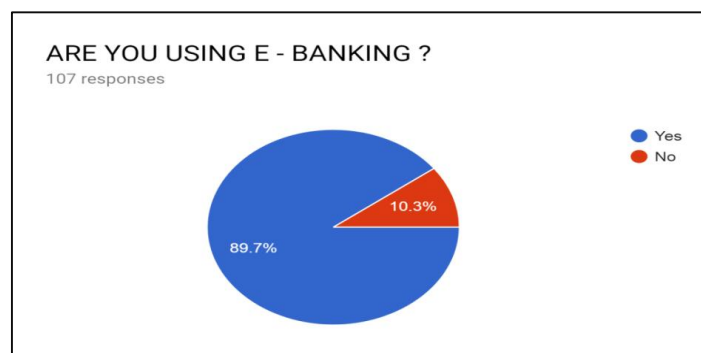
Above pie chart shows that 90.7% people are ready to accept updated technology with time and our study prove that majority people are using or accepting new technology and as compared with other people who are not ready to accept any change in technology as per the situation. In our pie chart we can also see that 9.3% people are there who are not ready to accept technology.

9. ARE YOU READY TO ACCEPT NEW TECHNOLOGIES IF YOU NEEDED?



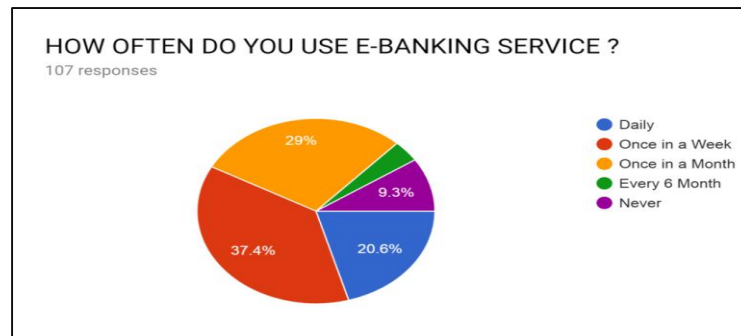
Here researcher proves that whenever requirement arise 100% people are ready to accept the new technology as per their need.

10. ARE YOU USING E – BANKING?



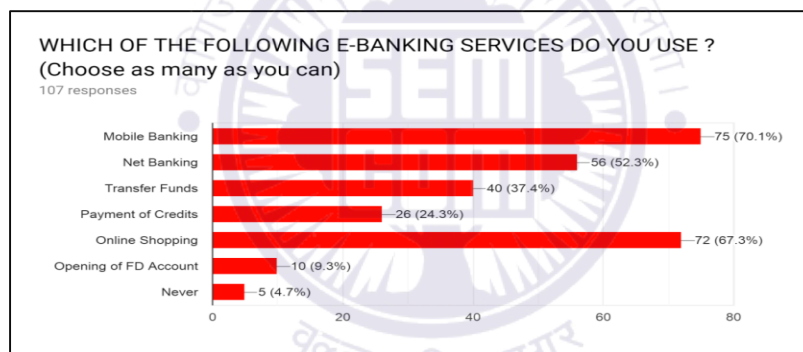
Researcher easily proves that only 10.3% people are not using E-banking services as compared with this 89.7% people are happily using E-banking services.

#### 11. HOW OFTEN DO YOU USE E - BANKING SERVICE?



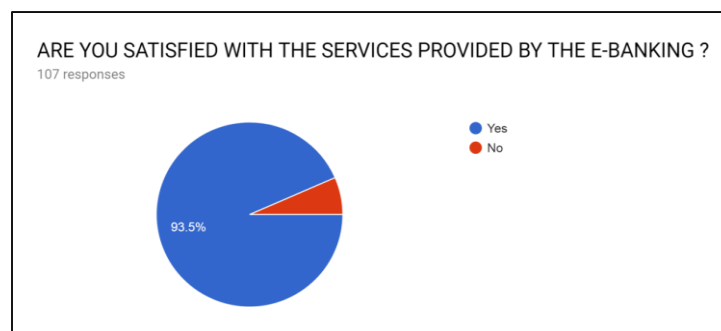
Above pie chart shows that 37.4% people are using E-banking services once in a week, 29% people are using E-banking services once in a month, 20.6% people are using E-banking services daily, 3.7% people are using E-banking services after every 6 month and as compared with above only 9.3% people are not using E-banking services. So from this researcher wants to show that majority people are using E-banking service once in week and once in a month. So we can imagine people have that awareness about E-banking services as they have the awareness they come to know what are the opportunities and benefits they can get from the E-banking services.

#### 12. WHICH OF THE FOLLOWING E-BANKING SERVICES DO YOU USE? (CHOOSE AS MANY AS YOU CAN)



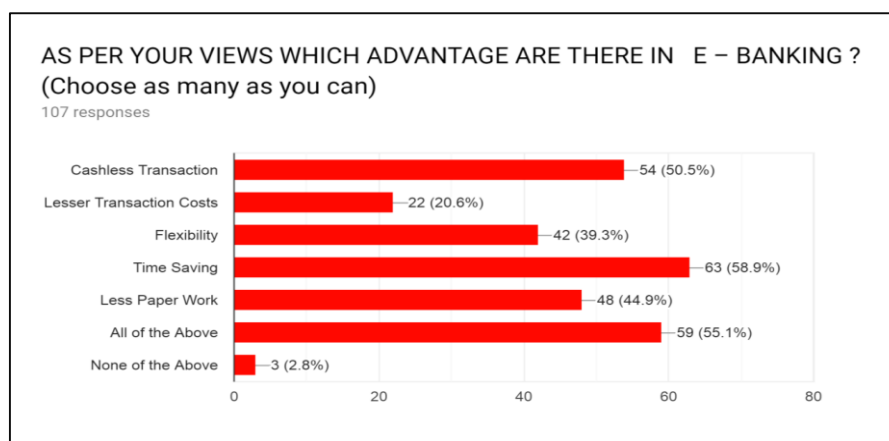
Above bar chart shows that 70.1% people are using mobile banking, 67.3% people are using online shopping, 52.3% people are using net banking service, 37.4% people are using transfer funds through E-banking service, as compared with these only 24.3% people are using E-banking service through payments of credits, 9.3% people have open their FD account and 4.7% people are never using E-banking services. So through this analysis researcher wants to shows that majority people are using mobile banking and online shopping which will be easily carried out through mobile phone. Mobile phone is the kind of technology through that people can easily access the E-banking services and from that they are also saving their time.

#### 13. ARE YOU SATISFIED WITH THE SERVICES PROVIDED BY THE E - BANKING?



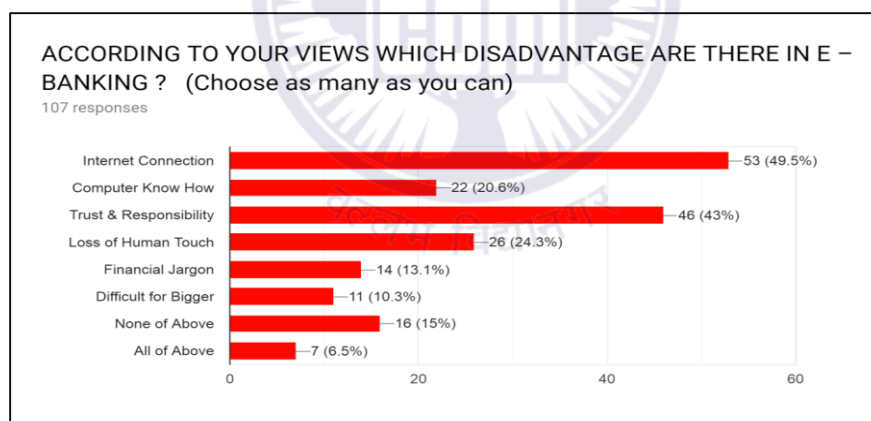
Researcher happily said that 93.5% people are satisfied with the services provided by E-banking as compared with the unsatisfied people. Only 6.5% people are unsatisfied with the services. As per above analysis researcher wants to prove that majority people are using E-banking services and they all are satisfied with E-banking technology. We can see the impact of updating technology in the market through the users of that technology.

14. AS PER YOUR VIEWS WHICH ADVANTAGE ARE THERE IN E-BANKING ? (CHOOSE AS MANY AS YOU CAN)



Researcher found out that only 2.8% people are saying that there is no advantage in E-banking services as compared with this majority people are saying that time saving and cashless transaction are major advantages of E-banking service. 55.1% people are saying that stated all the advantages by researcher are found in E-banking services. So these researchers prove that E-banking service is beneficiary for users of E-banking.

15. ACCORDING TO YOUR VIEWS WHICH DISADVANTAGE ARE THERE IN E - BANKING? (CHOOSE AS MANY AS YOU CAN)



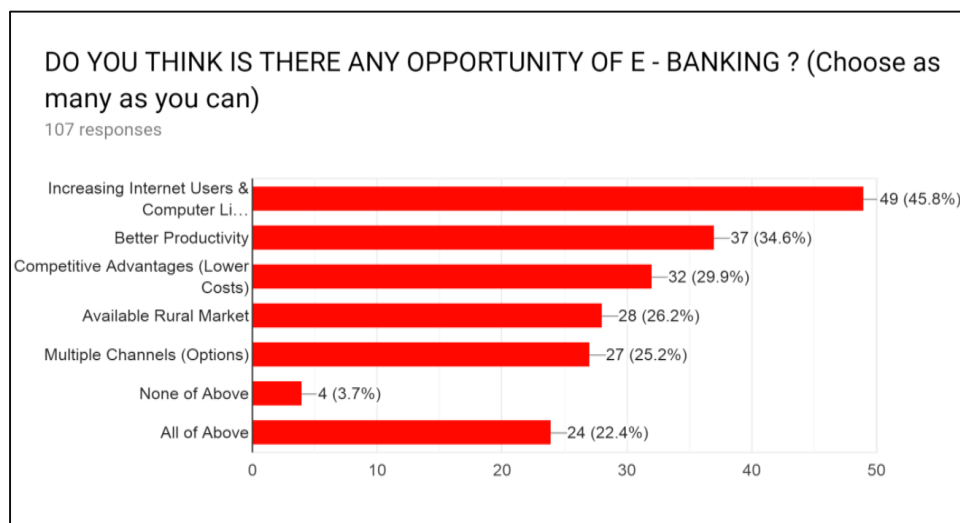
This Bar graph prepared as per the responses of the respondents, according to that 49.5% people do not have internet facility and 43% people do not have reliability on trust and responsibility of E-banking services. 23.4% people think that because of E-banking service and updating technology will lost their human touch with mankind. Another important disadvantage suggested by people is that majority people are unable to operate computer and they don't know financial jargon it becomes major barriers of E-banking services.

16. DO YOU THINK IS THERE ANY OPPORTUNITY OF E - BANKING? (CHOOSE AS MANY AS YOU CAN)

As per the Bar graph researcher can get various opportunity of E-banking service. We can that by using E-banking services internet users are increase and computer literacy are also increase. We can also see that better productivity

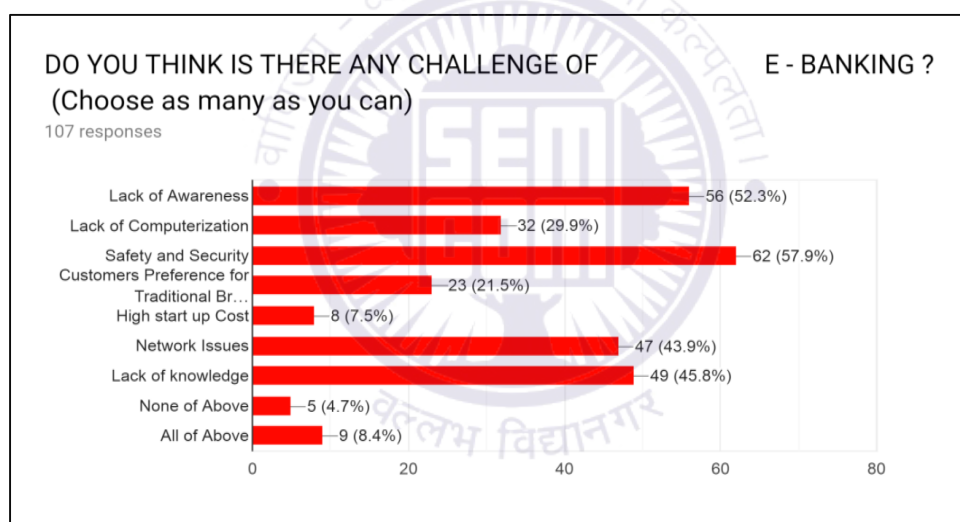


in the market. In this competitive correspondence market E-banking service provides us lower cost service by reducing transportation and investment cost.



17. DO YOU THINK IS THERE ANY CHALLENGE OF E - BANKING?

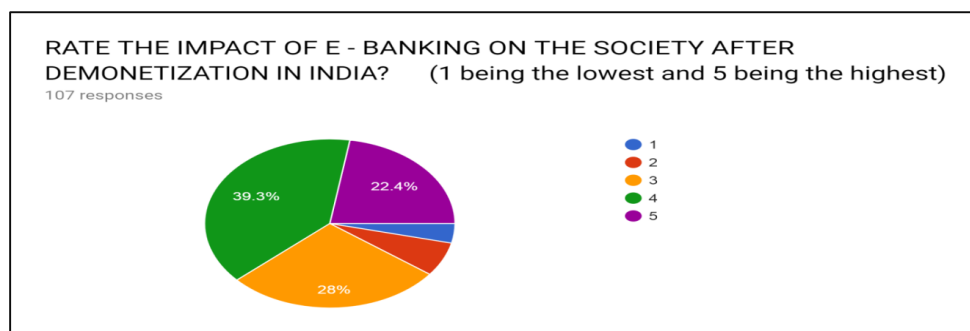
(CHOOSE AS MANY AS YOU CAN)



As the motto of this study is to prove that safety and security is the main challenge of e-banking in India, we found that even the practical users feel that safer and secure usage of e-banking is a drawback. As discussed above, if the safety measures are adopted by all the banks, E-banking will be a phenomenal implementation by the citizens of India. It might even transform into a revolutionary service by the banking companies. Apart from this lack of knowledge and network issue are also the major challenge faced by people. So we need to take steps behind this challenge we need to be build up strong network connectivity and make them aware about the updating technologies.

18. RATE THE IMPACT OF E - BANKING ON THE SOCIETY AFTER DEMONETIZATION IN INDIA? (1 BEING THE LOWEST AND 5 BEING THE HIGHEST)

So we can see that 10.3% people are not agreed to accept demonetization because they thought no positive impact of demonetization on market or people, 28% people are partially agreed to accept demonetization because they notice partially impact of demonetization on people or market, 39.3% and 22.4% people have positively accept demonetization in India because they feel there transactions become smooth and safe after demonetization. Through this we can imagine in future if the positive effects will be there on demonetization majority people will accept it.



So we can see that 10.3% people are not agreed to accept demonetization because they thought no positive impact of demonetization on market or people, 28% people are partially agreed to accept demonetization because they notice partially impact of demonetization on people or market, 39.3% and 22.4% people have positively accept demonetization in India because they feel there transactions become smooth and safe after demonetization. Through this we can imagine in future if the positive effects will be there on demonetization majority people will accept it.

## CONCLUSION

In the past few years, the Indian banking segment has completely changed. The banks are facing much challenge and many opportunities are available with the banks. Many financial innovations like ATMs, Credit Cards, RTGS, Debit Cards, Net Banking, NEFT and Mobile Banking etc. have completely changed the face of Indian banking. But still there is a need to have more innovative solutions so that the challenges can be solved and opportunities can be availed efficiently by the Indian banks.

## REFERENCES

1. <https://www.dccu.us/blog/10-essential-security-measures-online-banking-safety-2017/>
2. [economictimes.indiatimes.com](http://economictimes.indiatimes.com)
3. <https://www.merchant.com/blog/e-banking-meaning-advantages-and-disadvantages/>
4. [classroom.synonym.com](http://classroom.synonym.com)
5. Advantages and Disadvantages of Internet Banking, an article by Vinish Parikh, Link: <http://www.letslearnfinance.com/advantages-and-disadvantages-of-internet-banking.html>
6. [www.rbi.org.in](http://www.rbi.org.in)
7. Youssef Abdul Khalek and Ahmad Bakri, 2017. "The E-Banking in Emerging markets", International Journal of Development Research, 7, (11), 17186-17192.
8. Kumari Nidhi, "E-banking in india: challenges and opportunities", International Journal of Science Technology and Management, Vol. No. 5, Issue No. 8, August 2016.

9. Mr. L.Ramesh and Dr. A.Muthumani, "Electronic Banking in India: Challenges and Opportunities", International Journal of Science Technology and Management, Vol. No. 6, Issue No. 02, February 2017.

## Authors' Profile

### Mehul J. Mistry

Assistant Professor

Sardar Patel College of Administration & Management – Bakrol

[mistrymehul1690@gmail.com](mailto:mistrymehul1690@gmail.com)

### Dr. Vashishthadhar J. Dwivedi

Principal

Shri R.P. Arts, Shri K.B. Commerce and Smt. B.C.J. Science College – Khambhat

## Measuring Public Awareness towards Goods and Services Tax (GST): An Empirical Study in Sabarkantha of North Gujarat Region

Dr. Reena Dave, Mr. Shabbirali S. Thavara

### Abstract

In this paper an attempt is made to measure public awareness as well as understanding of goods and services tax (GST) in the context of Sabarkantha of North Gujarat Region. In the field of indirect tax amendment, introduction of GST is very important step taken by Indian government through merging Central taxes and State taxes into one and single tax. It removes double tax effect that is cascading effect and provides a common tax at national level.

In the year of 2004 the concept and idea of GST was suggested by Kelkar Task force but in India it was implemented in 2017. During this time period Indian government take various steps for implementation and to understand the system. When GST was implemented, at initial stage public appears confused regarding system and many complains and questions are raised on authorities.

This study contributes the existing literature on public awareness, knowledge and understanding towards goods and service tax (GST), which is basically under-researched in selected area of Sabarkantha district of North Gujarat Region.

Keywords: Government, GST, Sabarkantha of North Gujarat Region, Public awareness, System.

### Introduction

Under Indian taxation system various indirect taxes were levied and collected by State as well as Central Government at multiple rates. The concept and idea of Goods and Services Tax (GST) was suggested in India by Kelkar Task force in the year of 2004. In the year of 2007-2008 Mr. P. Chidambaram (Union Finance Minister) presenting the Central Budget declare that from 1ST April 2010 GST would be introduced in India but GST was continued to missed numerous deadlines.

In Lok Sabha CAB (Constitution Amendment Bill) was introduced by Mr. Arun Jaitley (Finance Minister) on 19th December, 2014. In the year of 2016, Rajya Sabha Passed the Bill, while Lok Sabha made changes in bill and passed the bill on 8th of August 2016. On 8th of September 2016, Constitution Bill, 2014 (122nd Amendment) received approval of President and it became Constitution (101st Amendment) Act, 2016.

In the next year various bills were introduced in Lok Sabha on 27th March. Considering the presented bill on 29th March, 2017, Lok Sabha passed these bills and with the receipt of the President's assent on 12th April, 2017, the Bills were enacted. The Government of India declares that the GST Bill will be applicable from 1 July 2017. GST has subsumed various indirect taxes like excise duty, service tax, VAT, entertainment tax, entry tax, etc.

First introduction and implementation of GST was done in the year 1954 by France and across the world more than 160 countries have adopted GST. India became 161th nation who adopt GST because this tax has the capacity to increase the income in the most transparent and neutral manner.

"Goods and Service Tax is value added tax levied on manufacture, sales and consumption of goods and services."

GST provide broad chain of tax credits from the producer or service provider to the retailer or consumer level and thereby taxing only the value added at stage of supply chain. The supplier avail various tax credit on purchase at each stage is permitted to set off credit against the GST payable on the supply of goods and services to be made by him. In this system only final customers bears the tax charged by last supplier. Under GST only value added at each stage is taxed, therefore there is no tax on tax under GST system. GST doesn't differentiate between goods and services and thus, these two are taxed at a single rate.

### Review of Literature

In this section various views of literature are presented which are related with the public awareness towards goods and services tax. Noormahayu Binti Mohd Nasir et al conducted a study and revealed that the main factor which contributes public awareness towards Goods and Services Tax were

three independent variables and it has significant impact towards public awareness on goods and services Tax (GST). Nor Iza Binita Ishak et al., conducted a study on GST in Malaysia. Findings of study revealed that so many students disagree with implementation method of GST and tax is mainly source of income for government.

Cullis & Jones (1992) conducted a study on taxation and main points of this study was concept of incorrect awareness in citizens of country which are classified as pessimistic and optimistic. Here the concept of optimistic refers to civilian who inaccurately estimate tax burden with the tax imposed to the public (Saira et al., 2010).

Pinki et al. in the year of 2014 conducted a study in India and result shows that in India NDA government is very positive for implementation of GST. It also shows that if it is implemented with the help of powerful IT infrastructure than in long run it proves beneficial for the customers as well as central and state government. In the same year (2014) Kumar also conducted a study on "Goods and Service Tax - A way forward". This study was conducted in India after implementation of GST

Saira et al., (2010). conducted a study and result shows that many citizen of Malaysia don't have confidence on Malaysian government in concern with tax. Because of this it is necessary for government to explain taxation matters so citizen could have a clear understanding about GST.

### Motivation for the Study

Many research studies have been conducted in outside India and some studies also conducted in India but a study on public awareness towards goods and services tax but Sabarkantha of North Gujarat Region is far from adequate and it requires more attention. This research is attentive effort to fill this

### Data Analysis and Results

#### Demographic Profile of the Respondents:

Table I highlights that majority of the respondents are male ( $n = 38$ , 76%), with an occupation as business. With regard to their income, most of them have an income of Rs. 1,00,000 to 2,00,000 ( $n = 26$ , 52%) and having an education up to graduation ( $n = 29$ , 58%).

gap by identifying awareness level regarding Goods and Services Tax among the public of Sabarkantha of North Gujarat Region.

### Research Methodology

#### Problem Statement

In Indian indirect tax mechanism Goods and services tax is a key amendment and because of this it requires to understand and measure the level of awareness regarding Goods and Services Tax among the public of Sabarkantha of North Gujarat Region. The research problem to be addressed in this study is: "Measuring Public Awareness towards Goods and Services Tax (GST):

An Empirical Study in Sabarkantha of North Gujarat Region"

#### Objectives of the Study:

- To measure awareness level among the public relating to goods and services tax (GST) in Sabarkantha of North Gujarat Region.
- To examine demographic profile of respondents.
- To provide suggestions based on the findings.

#### Sampling Design and Data Collection:

This study is based on both primary data as well as secondary data. In This study Primary data was collected by using structured questionnaire, while secondary data have been collected from journals, websites and so on. Since approaching all the people of Sabarkantha of North Gujarat Region was not at all possible to get their opinion towards GST awareness, only 50 respondents were contacted personally because of time and budget constraints. For this purpose, non-probability convenience sampling technique was used to elect the sample from the population.

**Table I: Demographic Profile of the Respondents (n = 50)\***

Demographic Variable	Category	Frequency	Percentage
Gender	Male	38	76.00
	Female	12	24.00
Occupation	Business	32	70.00
	Private Employee	11	22.00
	Govt. Employee	7	14.00
Income (in Rs.)	1,00,000 to 2,00,000	26	52.00
	2,00,001 to 3,00,000	13	26.00
	More than 3,00,000	11	22.00
Education Level	Under Graduate	4	08.00
	Graduate	29	58.00
	Post Graduate	17	34.00

Note: \*: Source - Primary Survey

#### Awareness about Goods and Services Tax (GST):

As depicted in Table II, greater number of the respondents are aware of new GST bill (n = 33, 66%), while 62 percent (n = 31) respondents have no conception idea regarding proposed tax rate. However, 78 percent (n = 39) believe that burden of tax is reduce by GST

**Table II: Respondents' Awareness and Understanding about GST (n = 50)\***

Demographic Variable	Category	Frequency	Percentage
Knowledge of New GST bill	Yes	33	66.00
	No	17	34.00
Any conception regarding proposed tax rate	Yes	19	38.00
	No	31	62.00
Burden of tax is reduce by GST	Yes	11	22.00
	No	39	78.00
The rate of commodities would falls after implementation of GST.	Agree	13	26.00
	Disagree	37	74.00
In India GST is step relate to a developed nation	Agree	31	62.00
	Disagree	19	38.00
GST bill met the expectations towards principle of "One Nation One Tax"	Agree	41	82.00
	Disagree	9	18.00

Note: \*: Source - Primary Survey

Moreover, it is found that 74 percent (n = 37) respondents are disagree with the statement that "The rate of commodities would falls after implementation of GST" due to high tax rate on basic essential needs items, 62 percent (n = 31) of the respondents are agree that in India GST is step relate to a developed nation. And 82 percent (n = 41) of the respondents are agree with the statement "GST bill met the expectations towards principle of "One Nation One Tax".



### Implications or Recommendations of the Study

Based on research the findings and some important recommendations of this study are as follows.

- The government should arrange more seminars to raise the level of awareness about GST among the public.
- It is suggested that the awareness towards GST should be provided to the female community.
- General public awareness regarding goods and services tax (GST) should be conducted by the educated people so that the awareness level regarding GST should increase in general public.

### Conclusion of the Study

The primary purpose of this study is to measure the level of awareness among the public regarding goods and service tax (GST) in Sabarkantha of North Gujarat Region. The findings indicated that 66 percent respondents are aware about the GST which showed moderate or medium level of awareness regarding GST. Meanwhile, many respondents (34 percent) were no awareness regarding GST. Furthermore, most of them (62%) have no conception or idea regarding proposed rate of GST while 78 percent respondents believe that burden of tax will not reduce by GST because high rate of taxes on basic needs items.

In addition, this study also shows that 74 percent of the respondents are disagree with the statement that “The rate of commodities would falls after implementation of GST”. In this regard, for awareness purpose the govt. should organize more seminars of GST among public of Sabarkantha. The results of this research shows that the past study of Saira et al. (2010) is somewhat consistent with this study, in which they shows that public doesn't have high level of awareness regarding goods and services tax (GST).

### Limitation and Scope for Future Researches

First, this study is only confined to Sabarkantha district of North Gujarat Region. Hence, its findings may not be extensive to other district of Gujarat or other states of India also. Therefore, researchers, in future studies, may further research on multi-cities, district or states by extensive geographical areas to have better generalizations. Second, in this study data is collected from 50 respondents because of time and budget constraints.

### References

1. Cullis, J. & Jones, P. (1992). Public Finance and Public Choice. Singapore, McGraw-Hill International (UK) Limited.
2. Noormahayu Binti Mohd Nasir, Ashimah Binti Abdullah Sani, Nor Marini Binti Mohtar and Zu Khairunnisa Binti Zainuridin “Public Awareness towards Goods and Services Tax (GST) in Kuala Lumpur, Malaysia”, International Academic Research Journal of Social Science, Vol. 1, No. 2, pp. 101 – 106, 2015.
3. Nor Iza Binti Ishak, Muhammad Hanif Bin Othman and Muhamad Fuzi Omar “Students perception towards the newly Implemented Goods and Services Tax (GST) in Malaysia”, International Journal of Contemporary Applied Sciences, Vol. 2, No. 6, pp. 80 -99, 2015.
4. Pinki, S. K., & Verma, R. (2014). Good and Service Tax–Panacea For Indirect Tax System In India. Tactful Management Research Journal”, Vol2, (10).
5. Saira, L., M.A., Zariyawati, M. Am & Yoke-May, L. (2010). An exploratory study of goods and services tax awareness in Malaysia. Political Managements and Policies in Malaysia. University Utara Malaysia Sintok , Sintok, pp. 265-276.

### Authors' Profile

#### Dr. Reena Dave

Assistant Professor, SEMCOM

#### Mr. Shabbirali S. Thavara

Research Scholar (Ph.D.),  
Vallabh Vidhyanagar  
Sardar Patel University

thavara58@gmail.com

## IFRS Implementation and Financial Reporting Quality: Review of Evidences from ASEAN Countries

Dr. Juao C. Costa, Ms. Lorraine Rayelle Gomes

### Abstract

Emergence of the International Financial Reporting Standards (IFRS) has been one of the largest phenomena in the area of accounting and financial reporting. It has given rise to in-depth discussions among stakeholders and academicians on the benefits as well as consequences of IFRS adoption on economies. The study was aimed at analysing the available literature on IFRS implementation in the Association of South-East Asian Nations (ASEAN). The 10 nation association shares strong trade and investment relations with India. In the wake of international trade it is therefore important to ensure comparability of financial reports with those of trade partners. The study therefore is an attempt to understand the IFRS implementation of select ASEAN members. It also reviews the impact of IFRS on financial reporting quality among ASEAN members with special focus on the aspects of value relevance, information quality and earnings. The entire study was based upon the existing literature and secondary data available on IFRS implementation among ASEAN members. The findings of the study provide an understanding of the implications of IFRS and its adoption or convergence on economies. Keywords: IFRS, ASEAN, financial reporting,

### Introduction

Financial reporting is the process of summarising and presenting accurate information about a company's revenues, expenditures, profits, equity and cash flows to its stakeholders. These stakeholders include suppliers, customers, Government, lenders and more importantly the investors. The financial statements should therefore mirror the true and fair view of a company's financial position and operations and act as tools for informed investment decision-making. The primary purpose of financial reports is to enable investors make investment decisions (Omokhudu & Ibadin, 2015). Economies have followed local accounting standards or the Generally Accepted Accounting Principles (GAAP) for decades while preparing their financial reports. However a need was felt to create a common accounting language and harmonise the accounting standards globally to ensure better cross-border comparability of financial reports. This was achieved through the historic innovation of the International Financial Reporting Standards (IFRS) by the International Accounting Standards Board (IASB) in 2002.

Countries worldwide have either permitted or mandatorily adopted the standards since their inception. IFRS have been adopted successfully by thousands of companies in over 144 jurisdictions as of September 2018 ("Use of IFRS Standards around the world", 2018) while many others are converging their local standards with IFRS. Since its adoption by the European Union (EU) in 2005, IFRS has been supported as well as critiqued by researchers. It has sparked a curiosity among empirical researchers to understand the benefits and consequences of this rapidly growing trend across countries.

Around 27000 domestically listed companies on 88 major stock exchanges of the world use IFRS for reporting ("Use of IFRS Standards around the world", 2018). This covers jurisdictions across Europe, America, Africa, Middle East and the Asia-Oceania region.

**Table1: Use of IFRS by jurisdictions as of April 2018**

	Number of Jurisdictions	Percentage of total
Europe	44	27%
Africa	38	23%
Middle East	13	8%
Asia and Oceania	34	20%
Americas	37	22%
<b>Totals</b>	<b>166</b>	<b>100%</b>

Source: "Use of IFRS Standards around the world" (2018)

The Asian countries which are mainly considered developing economies are emerging more resilient and stable in the midst of global trends. The Asian Development Bank, in 2016, reported that Asia's intra-regional trade accounted for a total of 60% of total global trade which was second

only to the EU's member countries at 69% ("Asia's Economic Integration against Global Disintegration", 2018). Associations like the ASEAN have played a significant role in this direction. It is also worthy to note that eight out of the ten ASEAN countries are also members of the Asian-Oceanian Standard-Setters Group (AOSSG).

India's interaction with ASEAN spreads across areas of defense, telecommunications, industry, agriculture, environmental concerns and tourism. It has strong bilateral connections with each of the 10 member countries. The Free Trade Agreement (FTA) between India and the ASEAN has created tremendous opportunities for trade and economic cooperation especially with powerful emerging economies like Singapore, Malaysia and Thailand.

India is also on its path towards a phase-wise convergence with IFRS. It formulated the IFRS converged Indian Accounting Standards (IndAS) and allowed its voluntary implementation from financial year 2015-16. The same were made mandatory since 2016-17 for companies with a networth of Rs. 500 crore and above and from 2017-18, for all listed companies as well as unlisted companies with a networth of Rs. 200 crore and above (except banks, insurance companies and NBFCs) which will be brought under the system in the subsequent financial years ("Indian Accounting Standards (IFRS converged)", 2018). Since India is in its initial phases of IFRS implementation it is necessary to take a look at the benefits and consequences of the standards on its trade partners. This study has therefore been undertaken to review the academic literature and compile the available empirical evidences on the effects of IFRS adoption on ASEAN economies. The study presents the documented effects of IFRS adoption along a variety of dimensions such as value relevance, information quality and earnings. It also highlights the implementation process of IFRS in the member countries of ASEAN.

### **Research Objectives**

The paper reviews the available empirical literature on the effects of IFRS implementation on the financial reporting of the selected sample. The study was undertaken with the following objectives:

a) To study the IFRS implementation among ASEAN members with reference to domestic companies, foreign companies and SMEs.

b) To review the impact of IFRS on financial reporting quality among firms of ASEAN members with special focus on the aspects of value relevance and earnings management.

### **Research Methodology**

The study follows a qualitative approach and is primarily based on secondary data. It involves a review of the available literature on the implementation of IFRS in ASEAN. The data for objective one has been mainly compiled from the information available on the official websites of the IFRS and IAS organisation. It highlights the implementation process followed by the countries in terms of public domestic companies, foreign companies and SMEs in the respective economies. The second objective focuses on the impact of IFRS on accounting information quality with respect to value relevance and earnings management. For this section, the available research on the said aspects was reviewed. Most of the research evidence is found for economies like Malaysia, Singapore, Thailand, Philippines and Indonesia.

### **Overview of IFRS implementation in ASEAN**

The Association of South East Asian Nations (ASEAN) is an association that today consists of 10 Southeast Asian countries. In 1967, Indonesia, Thailand, Malaysia, Philippines and Singapore founded ASEAN. The aim was to improve economic, political and social cooperation. In 1995, other countries like Vietnam, Cambodia, Laos and Myanmar joined the Association. There is a rising concern for uniformity in the accounting standards followed by these countries and the ASEAN members are under the pressure to converge their local standards with the IFRS at the earliest (Yapa, Joshi, & Kraal, 2011).

The IFRS implementation process of the ASEAN members has been discussed in detail as follows:

#### **(a) IFRS requirement for domestic companies in ASEAN**

##### **Indonesia**

The country has followed the convergence approach towards IFRS implementation wherein it attempts to maintain its local GAAP also known as the Indonesian Financial Accounting Standards (IFAS) or Pernyataan Standar Akuntansi Keuangan (PSAK) and gradually converge them with IFRS wherever possible ("Indonesia – IAS Plus", 2012). All domestic companies whose securities are publicly

traded are required to follow the PSAK and do not have the option to fully comply with IFRS voluntarily.

### **Malaysia**

The Malaysian Accounting Standards Board (MASB) has approved and applied financial reporting standards for the business entities in the country as follows:

- Public entities:

All non-private entities in Malaysia are required to follow the Malaysian Financial Reporting Standards (MFRS) which are fully compliant with and are substantially equivalent to the IFRS. However an exception is made for a subset of public companies known as Transitioning Entities (TEs) which include agriculture and real estate companies as defined by the standards ("MASB extends transitional period", 2012). The MFRS framework was mandatorily applied to such entities for annual periods beginning on or after 1st January 2018.

- Private Entities:

With effect from financial beginning on 1st January 2016, private entities are required to apply the Malaysian Private Entities Reporting Standards (MPERS) which are similar to the IFRS for SMEs.

### **Singapore**

Singapore has followed the convergence path towards IFRS by incorporating nearly all the IFRS into Singapore Financial Reporting Standards (SFRS) with a few exceptions and with different effective dates for implementation. In case a domestic company is listed on both – a stock exchange in Singapore as well as on an exchange outside Singapore – then the company is permitted to use IFRS to comply with the requirements of the said foreign stock exchange.

### **Thailand**

All public listed companies in Thailand are required to apply the Thai Accounting Standards (TAS) issued by their standard setter – the Federation of Accounting Professions (FAP). However the TAS have been substantially converged with the IFRS barring a few standards. Listed companies are allowed to use those IFRS which have not been adopted as TAS. For non-listed companies TFRS which are equivalent to IFRS 2006 have been applied ("Thailand – IAS Plus", 2012).

### **Philippines**

Most IFRS have been adopted by the Philippines Financial Reporting Standards Council (PFRSC) with modification wherever necessary and the adopted standards are now known as Philippine Financial Reporting Standards (PFRS). These standards apply to all listed companies in the domestic domain of the country. Based on the criteria laid down by the SEC, certain domestic companies are also required to use PFRS even if their securities are not traded publicly.

### **Other members:**

Of the other member nations, Myanmar and Cambodia have adopted IFRS for publicly traded domestic companies. Myanmar has adopted the 2010 version of IFRS as Myanmar Financial Reporting Standards (MFRS) and plans to adopt the latest IFRS from financial year 2022-23 ("Myanmar", 2012). Similarly Cambodia has adopted the IFRS fully without any modification as the Cambodia International Financial Reporting Standards (CIFRS). Despite the absence of a stock exchange, Brunei Darussalam requires IFRS for financial institutions, banks and insurance companies. It also plans to implement IFRS in future for other companies and has initiated IAS awareness programmes. Vietnam on the other hand has not adopted IFRS at all but applies the Vietnamese Accounting Standards (VAS) based on the 2003 version of International Accounting Standards (IAS). Laos or Lao PDR is the only member of ASEAN which has not established any formal process of implementing IFRS.

### **(b) IFRS requirement for foreign companies in ASEAN**

Singapore classifies foreign listed companies into those with a primary listing and those which have a secondary listing on the Singapore Exchange. According to the listing rules of the exchange, foreign companies whose securities are primarily listed in Singapore have to mandatorily apply SFRS, IFRS or the US GAAP. However those which have a secondary listing may only reconcile their existing financial statements to the aforementioned standards. Application of IFRS is permitted for foreign companies whose securities are traded publicly in Malaysia. They have a choice between MFRS or any other set of international accounting standards recognized by MASB. Thailand permits IFRS for all foreign companies while foreign entities in Philippines and Indonesia are required to follow PFRS and SAK respectively. Cambodia requires



IFRS for foreign companies while Myanmar on the other hand does not have any foreign companies trading on its stock exchanges.

#### **(c) IFRS requirement for SMEs in ASEAN:**

Most of the members have issued standards for SMEs which are based on the IFRS for SMEs. These are applicable to firms which are defined as small entities according to the legal framework and criteria of the respective countries. Small and medium entities in Malaysia, Singapore, Thailand and Philippines are mandated to follow the MPERS, SFRS, TFRS and PFRS respectively which have been adopted from the IFRS for SMEs with a few necessary modifications. Indonesia requires the use of local standards for SMEs which have been developed by using IFRS for SMEs as a point of reference. Myanmar uses an older, 2009 version of IFRS for SMEs and plans to adopt the latest version from 2022-23. All SMEs in Cambodia are permitted to use IFRS for SMEs but it is mandatory for those SMEs which are subject to a statutory audit. Samujh & Devi, (2015) highlight the need for thorough research before implementing the global standards for SMEs to avoid the possibility of discouraging entrepreneurial activity which would in turn hamper national growth.

#### **Impact of IFRS implementation on financial reporting quality in ASEAN**

The EU was the first to adopt IFRS thereby making extensive research available on the effects of the adoption on financial reporting quality. IFRS adoption was found to have positively impacted the quality of financial information and reduced the scope for earnings management in countries like UK, Germany, France and Belgium (Almaharmeh & Masa'deh, 2018; Iatridis, 2010; Kouki, 2018). Developing countries in Africa and Asia were hit by the wave of IFRS adoption followed by the European and Australian continents. However very little attention was given to study the consequences of IFRS adoption on the value relevance of financial information in emerging economies like Kuwait and Turkey (El Shamy & Kayed, 2005; Kargin, 2013). This section provides a review of the research carried out mainly in the founding member nations of ASEAN.

#### **(a) Impact of IFRS on value relevance of accounting information**

Adibah Wan Ismail, Anuar Kamarudin, van Zijl, & Dunstan (2013) measured earnings quality of

Malaysian companies after the adoption of IFRS based accounting standards, using two different proxies namely, absolute value of abnormal accruals and value relevance. The results revealed that IFRS adoption significantly reduced the absolute value of abnormal accruals while it significantly increased the value relevance of the firm's earnings quality. Halim Kadri, Abdul Aziz, & Kamil Ibrahim (2009) adopted the market valuation and non-market valuation approaches to determine the effect of changes in the financial reporting regimes in Malaysia on value relevance. They found that there is a significant effect on value relevance of book value but not the earnings. The study also revealed that IFRS adoption did not have any significant impact on the relationship between earnings and operating cash flow.

Research in Indonesia by Hayati, Yurniwati, & Putra, (2015) revealed that Intellectual Capital could have positive and significant effects on value relevance of accounting information (earnings, book value and cash flows) of public manufacturing firms before and after the convergence of local standards with IFRS, with a few exceptions. It inferred that companies with larger Intellectual Capital can generate higher value relevance of accounting information.

Juniarti, Helena, Novitasari, & Tjamdinata, (2018) also add to the literature by studying benefits of IFRS adoption using longitudinal data of the same variables and conclude that value relevance of accounting information increases after IFRS adoption in case of manufacturing companies listed on Indonesia Stock Exchange (IDX). Further research by Prihatni, Subroto, Saraswati, & Purnomosidi (2016) on 70 manufacturing companies in Indonesia revealed that value relevance of book value and earnings is higher during the IFRS implementation phase while that of cash flows is lower.

The value relevance of earnings, book value and cash flows after IFRS adoption is also studied in Malaysia by Mirza, Malek, & Abdul-hamid (2019) who discovered that cash flows from operations are the most significant accounting information which investors prefer in decision making due to the focus on liquidity and survival of the firm in the long run.

#### **(b) Impact of IFRS on earnings management**

The impact of IFRS on earnings management is often studied from the point of view of absolute value of accruals. A study of 334 firms in Malaysia



by Fourati & Ghorbel, (2017) showed a significant decline in absolute value of discretionary accruals in the partial IFRS convergence phase and a restrictive effect after the complete IFRS implementation. Adibah Wan Ismail et al., (2013) also found a lowered absolute value of abnormal accruals after IFRS adoption in Malaysia. In a unique study, Ayedh, Fatima, & Mohammad (2019) studied the influence of IFRS on earnings management practices in Malaysia during the 2008 financial crisis. It concluded that managers in such countries take advantage of the crisis period to manipulate earnings downwards. Abdullah, Maruhun, Tarmizi, & Rahman, (2018) also confirm that there is a significant relationship between the characteristics of Board of Directors and the levels of earnings management after the adoption of IFRS. In Indonesia, accrual earnings management was lower after IFRS as compared to before thus showing an improvement in earnings quality (Setiawan, Md. Taib, Phua, & Chee, 2019).

Mechanisms used by listed companies for Good Corporate Governance also have a positive impact on earnings management post convergence of IFRS with Indonesian Financial Accounting Standards (PSAK) according to Luthan, Satria, & Ilmainir, (2016). While composition of Independent Board, audit committee and audit quality showed a negative impact on earnings management, institutional ownership showed positive effects after IFRS convergence.

Full IFRS convergence in Malaysia was found to be effective in the short term but not in the long run as far as earnings management is concerned (Wong, 2018). It found that although the earnings management activities of the listed companies decreased in the first two years after full IFRS convergence, they increased during the third year. The findings highlight the importance of implementing IFRS in a way that it provides least motivation to companies to manipulate earnings management.

### **(c) Impact of IFRS on overall quality of accounting information**

The impact of IFRS implementation on the overall financial reporting quality has been studied in terms of other factors like information asymmetry, corporate governance and transparency practices.

Ebrahimi R. & Embong, (2014) observed a sample of 143 firms listed on Bursa Malaysia to find the association between adoption of IFRS and changes in information quality. The period under study was

three years before IFRS and three years after its adoption during which no other changes had taken place in the financial reporting of the country's firms. They used the bid-ask spread as a proxy for information quality which was found to have decreased during the post-IFRS period as compared to pre-IFRS thereby implying an improvement in the information quality. On similar lines, Wong, (2018) studied the impact of full IFRS convergence on the financial statements and ratios of the Malaysian listed companies. The study investigated the differences three years before and three years after the full convergence with IFRS. It applied the agency theory and the signalling theory to predict that the quality of financial statements improves with full convergence. Significant differences were reported in financial numbers and ratios under IFRS and the local GAAP which suggested that there is a positive change in the disclosure and reporting quality.

The quality of IFRS complied financial reports was found to be positively associated with corporate governance and transparency practices of firms in Malaysia and Singapore by Hla & Md Isa (2015). They used multiple regression analysis on the data of firms listed on Bursa Malaysia and Singapore Stock Exchange (SGX) and also concluded that sustainable convergence with IFRS can be achieved in ASEAN countries by improving the areas of corporate governance and transparency.

Fitriany, Utama, Farahmita, & Anggraita (2017) studied mandatory IFRS adoption for listed companies in ASEAN countries and documented evidences of reduced information asymmetry. They suggested that regulatory authorities should oversee companies to promote full and fair disclosure especially in case of those companies which have a larger analyst following. The study also showed that better public governance and analyst following reduce cost of equity after IFRS.

Information asymmetry was found to be a mediating factor between IFRS and FDI inflows Yousefinejad, Ahmad, Salleh, Abdul Rahim, & Azam, (2018) . They conclude that IFRS adoption reduces information asymmetry thereby improving reporting quality which is a strong determinant for FDI inflows and subsequent economic growth. The findings are therefore consistent with the signaling theory and support the choice of IFRS for ASEAN countries.

## Conclusion

IFRS has been into existence for more than a decade and several researchers have attempted to understand its consequences on the accounting scenario across the globe. Despite the availability of extensive research in the European region, it is however observed that research on IFRS adoption in the Asian continent is limited. Countries in Asia, although often classified as developing or under-developed, have made numerous strides towards global trade. This is substantiated by the strong ties of organisations like ASEAN with powerful economies of the world. Cross border trade creates the need for easy comparability and harmonisation of financial reports. This has led to the rapid adoption of the IFRS which are dubbed as the common accounting language of the world. Both developed as well as developing economies have initiated and also successfully completed the process of implementing IFRS for their publicly listed firms. The member countries of the ASEAN have always played a significant role in improving their economic relations with the rest of the world and their implementation of IFRS is a right step in that direction. Majority of the countries have adopted IFRS as their own with minor modifications to suit their respective business environments. Foreign companies listed in most of these economies have the liberty to follow IFRS in its original form which is an important requirement to promote comparability of the financial statements. It is also interesting to note that the member nations are encouraging the use of IFRS for SMEs. However researchers are of the opinion that this requirement may discourage the start-up culture in their economies which is considered important for national growth. The reviewed literature also reveals that IFRS has played a significant role in improving the reporting quality and value relevance of financial reporting in the areas under study. It has been instrumental in reducing the earnings management activities of the firms thereby decreasing instances of corruption and manipulation which is known to be a common feature in developing economies. It has also significantly reduced information asymmetry which has further improved the financial reporting quality.

## References

1. Abdullah, W. R. W., Maruhun, E. N. S., Tarmizi, M. A., & Rahman, L. A. (2018). Mitigating earnings management: adoption of IFRS and corporate governance practices in Malaysia. *International Journal of Academic Research in Business and*

- Social Sciences*, 8(2), 760–772. <https://doi.org/10.6007/ijarbss/v8-i2/3983>
2. Adibah Wan Ismail, W., Anuar Kamarudin, K., van Zijl, T., & Dunstan, K. (2013). Earnings quality and the adoption of IFRS-based accounting standards: evidence from an emerging market. *Asian Review of Accounting*, 21(1), 53–73. <https://doi.org/10.1108/13217341311316940>
3. Almaharmeh, M. I., & Masa'deh, R. (2018). Mandatory IFRS Adoption and Earnings Quality : Evidence from the UK. *Modern Applied Science*, 12(11), 197–209. <https://doi.org/10.5539/mas.v12n11p197>
4. Asia's Economic Integration against Global Disintegration. (2018). Retrieved from 2. <https://www.forbes.com/sites/yuwahedrickwong/2018/09/30/asias-economic-integration-against-global-disintegration/#658d44234279> accessed on 20 August 2019.
5. Ayedh, A. M., Fatima, A. H., & Mohammad, M. H. S. (2019). Earnings management in Malaysian companies during the global financial crisis and the coincidental effect of IFRS adoption. *Australasian Accounting, Business and Finance Journal*, 13(1), 4–26. <https://doi.org/10.14453/aabfj.v13i1.2>
6. Ebrahimi Rad, S. S., & Embong, Z. (2014). IFRS Adoption and Information Quality: Evidence from Emerging Market. *Asian Journal of Accounting and Governance*, 5, 37–45. <https://doi.org/10.17576/ajag-2014-5-03>
7. El Shamy, M. A., & Kayed, M. A. (2005). The value relevance of earnings and book values in equity valuation: An international perspective – the case of kuwait. *International Journal of Commerce and Management*. <https://doi.org/10.1108/10569210580000188>
8. Fitriany, Utama, S., Farahmita, A., & Anggraita, V. (2017). Economic consequences of IFRS adoptions around the ASEAN countries. *International Journal of Economics and Management*, 11(2 Special Issue), 529–551. <https://doi.org/10.2139/ssrn.2824874>
9. Fourati, Y. M., & Ghorbel, R. C. (2017). The impact of IFRS-based accounting standards on earnings management: evidence from Malaysia. *International Journal of Accounting and Economics Studies*, 5(1), 1–6. <https://doi.org/10.14419/ijaes.v5i1.6821>
10. Halim Kadri, M., Abdul Aziz, R., & Kamil Ibrahim, M. (2009). Value Relevance of Book Value and Earnings: Evidence from Two Different Financial Reporting Regimes. *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/19852510980000638>
11. Hayati, M., Yurniawati, & Putra, A. R. (2015). The Effect of Intellectual Capital to Value Relevance of Accounting Information Based on PSAK Convergence of IFRS (Manufacture Firms in Indonesia). *Procedia - Social and Behavioral Sciences*. <https://doi.org/10.1016/j.sbspro.2015.11.133>

12. Hla, D. T., & Md Isa, A. H. Bin. (2015). Globalisation of financial reporting standard of listed companies in asean two: Malaysia and singapore. *International Journal of Business and Society*, 16(1), 95–106.
13. Iatridis, G. (2010). Implementation of International Financial Reporting Standards and the Quality of Financial Statement Information; An Investigation of Earnings Management and Value Relevance. *MBES*, 19, 193–204. <https://doi.org/10.1016/j.irfa.2010.02.004>
14. Indian Accounting Standards (IFRS converged): Successful Implementation - Impact Analysis and Industry Experience. Retrieved from <https://resource.cdn.icai.org/50820indas40481b.pdf> accessed on 24 July 2019.
15. Indonesia – IAS Plus. (2012). Retrieved from <https://www.iasplus.com/en/jurisdictions/asia/indonesia> accessed on 25 July 2019.
16. Juniarti, Helena, F., Novitasari, K., & Tjamdinata, W. (2018). The value relevance of IFRS adoption in Indonesia. *Jurnal Akuntansi Dan Keuangan*, 20(1), 13–19. <https://doi.org/10.9744/jak.20.1.13-19>
17. Kargin, S. (2013). The Impact of IFRS on the Value Relevance of Accounting Information: Evidence from Turkish Firms. *International Journal of Economics and Finance*, 5(4), 71–80. <https://doi.org/10.5539/ijef.v5n4p71>
18. Kouki, A. (2018). IFRS and value relevance: a comparison approach before and after IFRS conversion in the European countries. *Journal of Applied Accounting Research*, 19(1), 60–80. <https://doi.org/10.1108/JAAR-05-2015-0041>
19. Luthan, E., Satria, I., & Ilmainir. (2016). The effect of good corporate governance mechanism to earnings management before and after IFRS convergence. *Procedia - Social and Behavioral Sciences*, 219(1), 465–471. <https://doi.org/10.1016/j.sbspro.2016.05.021>
20. MASB extends transitional period for agriculture and real estate companies. 2012. Retrieved from [http://www.masb.org.my/press\\_list.php?id=29](http://www.masb.org.my/press_list.php?id=29) accessed on 29 July 2019.
21. Mirza, A., Malek, M., & Abdul-hamid, M. A. (2019). Value relevance of financial reporting: Evidence from Malaysia. *Cogent Economics & Finance*, 7(1), 1–19. <https://doi.org/10.1080/23322039.2019.1651623>
22. Myanmar. (2012). Retrieved from <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/myanmar/#application> accessed on 30 July 2019.
23. Omokhudu, O. O., & Ibadin, P. O. (2015). The Value Relevance of Accounting Information: Evidence from Nigeria. *Accounting and Finance Research*, 4(3), 20–30. <https://doi.org/10.5430/afr.v4n3p20>
24. Prihatni, R., Subroto, B., Saraswati, E., & Purnomosidi, B. (2016). Analysis of value relevance of accounting information during IFRS period of 2008 – 2014 at the stock exchange of Indonesia. *International Academic Journal of Accounting and Financial Management*, 3(3), 1–10.
25. Samujh, H., & Devi, S. S. (2015). Implementing IFRS for SMEs: Challenges for Developing Economies. *International Journal of Management and Sustainability*. <https://doi.org/10.18488/journal.11/2015.4.3/11.3.3.9.59>
26. Setiawan, D., Md. Taib, F., Phua, L.-K., & Chee, H.-K. (2019). IFRS and earnings management in Indonesia: the effect of independent commissioners. *International Journal of Business and Society*, 20(1), 37–58.
27. Thailand – IAS Plus. (2012). Retrieved from <https://www.iasplus.com/en/jurisdictions/asia/thailand> accessed on 29 July 2019.
28. Use of IFRS Standards around the world. (2018). Retrieved from <https://www.ifrs.org/-/media/feature/around-the-world/adoption/use-of-ifrs-around-the-world-overview-sept-2018.pdf> accessed on 09 July 2019
29. Wong, K. L. N. (2018). IFRS adoption impacts on financial position and earnings management: evidence from Malaysia. *RMIT*.
30. Yapa, P. W. S., Joshi, M., & Kraal, D. (2011). The Socio-Economic Impacts of the Adoption of IFRS: a comparative study between the ASEAN countries of Singapore, Malaysia and Indonesia. *Socio-Econ-IFRS*, (November), 1–26.
31. Yousefinejad, M., Ahmad, A., Salleh, F. M., Abdul Rahim, R., & Azam, H. M. (2018). The mediating effect of information asymmetry on IFRS and foreign direct investment. *International Journal of Economics and Management* 12, 12(2), 641–656.

## Authors' Profile

### Dr. Juao C. Costa

Rosary College of Commerce & Arts  
Goa  
[juao@rediffmail.com](mailto:juao@rediffmail.com)

### Ms. Lorraine Rayelle Gomes

Rosary College of Commerce & Arts  
Goa  
[lorraineofficial09@gmail.com](mailto:lorraineofficial09@gmail.com)



## Impact of Macroeconomic Indicators on Foreign Exchange Rate in India

Dr. Ramakanta Prusty, Dr. Jayesh J. Tanna, Janki Ashokbhai Dave

### Abstract

The present study explores the study of macroeconomic indicators and its impact on foreign exchange rates in India. Macroeconomic variables are released periodically by government agencies i.e. hand book of statistics issued by RBI, International Monetary fund and some private organizations also. These are the major indicators which affects economic performance of a particular country and therefor they create significant impact on forex market. The entire study is based on secondary data. In order to find out the relationship between macroeconomic indicators and foreign exchange rate (INR-USD), the time series data (2007-17) of various indicators like GDP, interest rates, foreign direct investment and inflation rate are regressed with the time series data of foreign exchange rate.

The study is divided into three parts. First part provides the background of the study and the economic indicators. The second part examines the relationship of indicators with foreign exchange rate and the final part exhibits the analysis, findings and conclusion. The study concludes that the overall exchange rate is significantly co-related with certain economic indicators which are forming the base of volatility in the market.

Keywords: foreign exchange rate, FDI, GDP, Inflation Rate, Interest Rate

### Introduction

Historical study shows that the Indian rupee which was at par with the American currency at the time of independence in 1947, has depreciated more in the past 70 years. Today we are spending more than 60 rupees per US dollar. So, the question is which circumstances and factors are pushing Indian rupee towards devaluation. Since independence India has faced many economic and political ups and downs which can make impact on value of currency. Appreciation and depreciation in value of currencies depend upon its value in relation to other currencies. Foreign exchange rate is the price of one currency in terms of another. It is the rate at which currencies are exchanged. There are some macroeconomic indicators which play an important role in determination of exchange rate and value of currency. Macroeconomic indicators are economic statistics which are periodically released by government. These indicators can have a significant impact on the forex market. The major indicators of macroeconomics are GDP, interest rate, balance of payment, foreign direct investment, inflation rate etc. FDI and GDP are the factors which influence the exchange rate the most. However, for this research four macroeconomic indicators viz. inflation rate, interest rate, GDP and FDI had been selected in order to examine their impact on exchange rate volatility in India.

- **Exchange Rate:** We cannot use one country's currency as a medium of exchange in another country; we need to convert our currency in to foreign currency in foreign exchange market, and this conversation rate is defined as exchange rate. Currency can be exchanged between countries with the help of exchange rate. Suppose the quotation USD/INR 60 means 1 USD will buy 60 INR. Here USD is called the "fixed currency" while INR is called the variable currency.

- **Inflation rate:** Inflation rate is very important indicator as it sends a signal of increasing price levels and falling purchasing power. High inflation means high prices for goods and services which affect the country's exports. Consumer price index is a measure of average price which consumers spend on a market based basket of goods and services. It causes decrease in demand for the rupee which leads to depreciated rupee value. Data of annual consumer price index is used as inflation rate which is published by Central Statistical Organization, Ministry of Statistics and Program, Implementation, Government of India.

- **Interest rate:** Monetary policy of any government is the most important factor in its economic decision making. Decision of central bank about interest rate can affect value of its currency. Generally, interest rate and value of currency have positive relationship. Value of currency can be increase by higher interest rates which will increase demand for currency. If one country's interest rate is high compared to another country's rate, then first country's funds are more likely to be attracted. An interest rate is described as the price a borrower pays for the use of money he does not

own which is generally expressed in percentage. In economies like India interest rate on bank deposits have been in decelerating state over time.

- **GDP:** Economic activity of a country is broadly measured by GDP. Growing economy having a higher level of economic activity and employment has good potential of appreciation in the value of their currencies. GDP is considered broadest measure of a country's economic performance. GDP signifies the total market value of finished goods and services which is produced during one financial year in country. Data of GDP growth rate (Average of quarterly data) at factor cost is used for the study purpose.

- **FDI:** foreign direct investment is an international flow of money where a country makes investment in other countries. Foreign Direct Investment is the major instrument which attracts international Economic Integration in any economy. Empirical evidence shows that there exists a positive relationship between FDI and exchange rate. FDI Data published by RBI handbook of statistics on Indian economy at (US\$ million) have been used in the present study.

### **Literature Review**

Venkatesan (2017) evaluated the various macroeconomic factors affecting exchange rate using Auto Regressive Distributive Lag, to enable to forecast the exchange rate. They analyzed that FDI has a long-term relationship in affecting the fluctuations of the Indian rupee. The study concluded that overall exchange rate is affected by some variables which proved to be significant in influencing the volatility. The short run effects, however, are not straight forward, as they are likely to depend on specific characters of the economy. Inflation had a negative impact on foreign exchange rate and therefore higher rate of inflation affected the exchange rate more negatively with respect to other countries. The Granger causality test revealed that inflation has an influence on FDI.

Khera (2015) found that exchange rate is highly dependent on the five select independent variables i.e. inflation rate, lending interest rate, FDI, GDP and current account deficit. Result of Regression, ANNOVA and correlation shows that inflation has negative correlation with exchange rate of an Indian currency; lending interest rate has negative correlation with exchange rate on Indian currency, while FDI and GDP growth rate have positive correlation with rupee value.

Twarowska et al; (2000) studied the major determinants of exchange rate of Poland against

the Euro. They observed those current account deficit and inflation rates are the most significant factors influencing the exchange rate. Interest rate in the economy and the government deficit were also found significant in influencing the exchange rate.

### **Objective of the Study**

The current paper has been designed based on the following core objectives:

1. To measure relationship between macroeconomic indicators and exchange rate.
2. To study impact of macroeconomic indicators on foreign exchange rates in India.

### **Hypotheses:**

With a view to examining the relationship between variables and to find out impact of selected macroeconomic indicators on exchange rate volatility correlation and regression analysis have been applied in order to test the following hypotheses.

H01: There is no relationship between macroeconomic indicators and exchange rates in India.

H02: There is no significant impact of macroeconomic indicators on exchange rates in India.

### **Research Methodology**

As has been mentioned earlier, in the present study four macroeconomic indicators i.e. FDI, GDP, Inflation Rate and Interest Rate have been considered as independent variables and foreign exchange rate as dependent variable. Annual data on the selected indicators for the period 2007 to 2017 were collected from sources like Handbook of Statistics on India Economy published by RBI and the website states india.com. For the FDI as an independent variable, annual data of foreign direct investment to India in US \$ have been used. For data of GDP we used GDP growth rate. Consumer Price Index for inflation rate and Prime Lending Rate (PLR) of Scheduled Commercial Banks were used for interest rate in percentage. Average annual Exchange rate data (USD/INR) were used for the dependent variable i.e. exchange rate. So the study used descriptive research design and quantitative data. Multiple correlation analysis was used to find out strength of relationship between the selected variables. Multiple liner regression was used to measure relationship between four independent



indicators (GDP, FDI, Interest Rate and Inflation) and one dependent variable i.e. Exchange Rate.

#### Data Analysis

Review of literature has revealed mixed opinions about the relationship between macroeconomic indicators and the exchange rate volatility. Some studies have found that the Gross Domestic Product (GDP) has a positive association with the exchange rate movement while some other studies deny such a relationship. Other major macroeconomic parameters viz. FDI, deposit rates of banks and rate of inflation also do not show a determined pattern of

correlation with the exchange rate in many countries. Studies of such nature are quite rare in the Indian context. The present attempt, therefore, is to see whether there exists any correlation between the selected macroeconomic indicators on one side and the exchange rate of the country on the other. For this purpose the following hypothesis has been tested and the results have been interpreted accordingly.

H01: There is no relationship between macroeconomic indicators and exchange rates in India.

**Table-1: Calculation of Co-relation between Exchange Rate and Macroeconomic Indicators**

	<i>Exchange Rate</i>	<i>FDI (US\$ million)</i>	<i>Inflation Rate CPI</i>	<i>Interest Rate</i>	<i>GDP Growth Rate</i>
<b>Exchange Rate</b>	1				
<b>FDI (US\$ million)</b>	0.554453042	1			
<b>Inflation Rate CPI</b>	0.95925719	0.600580738	1		
<b>Interest Rate</b>	-0.417542847	-0.7339658	-0.350903588	1	
<b>GDP Growth Rate</b>	0.999999958	0.554520985	0.95919946	-0.4177521	1

(Source: Researcher's Own Calculation)

#### Findings

Results of correlation analysis are presented in Table-1. Theoretically, the value of 'r' lies between +1 to -1. Positive value of 'r' indicates positive correlation between variables and vice-versa. The result of correlation analysis as shown in the table depicts that except rate of interest, there exists a positive correlation between the rest three macroeconomic indicators on one side and the exchange rate on the other. The highest positive correlation has been noticed between GDP growth rate (independent variable) and the exchange rate in India followed by inflation rate inward FDI respectively. While the correlation between GDP and exchange rate is found to be close to one i.e. there appears to be a perfect correlation between the two (0.99), that between Inflation Rate and exchange rate is also quite high i.e. 0.95. Only FDI has a slightly weak positive correlation with exchange rate, the value of 'r' being 0.55. Hence, the null hypothesis of the study has been rejected and it can be said that there has been a strong correlation between the macroeconomic variables and the exchange rate volatility in India over the period considered for the present research.

H02: There is no significant impact of macroeconomic indicators on exchange rates in India.

After examining the correlation, we tried to find out the magnitude of impact of the selected macroeconomic variables on the exchange rate movements of the country for the period as considered in the study. This has been done by applying the multiple regression method considering the four macroeconomic variables as independent variables and the exchange rate as the dependent variable and the results are presented and analysed as under.

**Table-2: Results of Multiple Regression between Macroeconomic Indicators and Exchange Rate**

SUMMARY OUTPUT					
<i>Regression Statistics</i>					
Multiple R	0.999999997				
R Square	0.999999995				
Adjusted R Square	0.99999999				
Standard Error	0.000984318				
Observations	10				
ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	907.8035595	226.9508899	234240015.8	7.28099E-21
Residual	5	4.84441E-06	9.68882E-07		
Total	9	907.8035644			
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>
Intercept	-0.034526675	0.007849077	-4.398819703	0.007029624	-0.054703369
<b>FDI (US\$ million)</b>	6.81916E-09	8.65911E-08	0.078751236	0.940285057	-2.1577E-07
<b>Inflation Rate CPI</b>	0.000114946	2.84856E-05	4.035218542	0.009969671	4.17211E-05
<b>Interest Rate</b>	0.002547803	0.000658665	3.868134322	0.011782496	0.000854652
<b>GDP Growth Rate</b>	0.999781034	0.000136334	7333.298125	8.94967E-19	0.999430575

(Source: Researcher's Own Calculation)

### Findings

The regression results presented in Table-2 shows that the p-value of two independent variables viz. inflation rate and interest rate is less than 0.05 which means that these macroeconomic variables have a significant impact on exchange rate volatility. From correlation analysis it was found that rate of interest on bank deposits has a negative correlation with exchange rate while the regression result shows that it has significant influence on exchange rate. This means that when rate of interest has decreased over time in India, it has, at the same time, contributed in the rising state of exchange rate of the country. Hence, it can be said that bank deposit rate is one of the factors influencing the exchange rate movement in a growing economy like India. It is also found that increasing inflation has significantly contributed to exchange rate volatility in India in the last decade. This is proved from the strong positive correlation

between inflation rate and exchange rate as the value of 'r' is 0.96 on one hand and the p-value which is far less than 0.05. Another interesting finding that appeared from the regression analysis is that p-value in case of GDP and inward FDI being far higher than the required value substantiate the fact that though there is a positive correlation between these independent variables and the exchange rate, there has not been any impact of such variables on exchange rate volatility. For instance, as per the results of correlation and regression, higher GDP growth rate has not at all affected the exchange rate volatility in India. Similarly, inflow of FDI to the country does not seem to have much impact on exchange rate though there exists a moderate positive correlation between the two.

Looking at the exchange rate market of India in the last one decade one finds that there has been a sharp increase in the exchange rate, especially since 2013.

The average annual exchange rate of USD/INR rose from 41.43 to 65.66 between 2007 and 2017. At the same time the annual inflation rate measured in CPI increased from 131.22 to 276.35 while the bank deposit rate decelerated from 8% to 7% (Handbook of Statistics on Indian Economy-RBI). The correlation and regression analysis have shown interesting results. While a strong correlation was found between inflation and GDP as independent variables and exchange rate as the dependent variable that between interest rate and FDI as independent variables and exchange rate as the dependent variable tuned out to be moderate. However, the impact of rate of interest and inflation on exchange rate has been quite significant while GDP and FDI do not seem to have any impact on exchange rate volatility.

### **Conclusion**

The present study was designed to examine the impact of selected macroeconomic variables on the movement of exchange rate in India. Four major macroeconomic variables such as GDP, inward FDI, Inflation measured in terms of CPI and deposit rate of interest of commercial banks were considered as independent variables while exchange rate was considered as the dependent variable. The correlation analysis depicted that two macroeconomic variables viz. GDP and inflation have strong positive relationship with exchange rate while the other two were seen to be moderately correlated with exchange rate. Regression analysis brought home the fact that deposit rate of commercial banks and CPI inflation do have a significant impact on movement of exchange rate. The case of GDP and inward FDI was different. Surprisingly, these two macro indicators did not show any impact on exchange rate movement. This suggests that during the study period i.e., from 2007 to 2017, exchange rate has grown irrespective of the status of GDP and inflation. While GDP growth has remained almost stable and inflation has fluctuated no impact has been noticed on the exchange rate which rose from 41.43 to 65.66 between 2007 and 2017.

### **References**

1. Thilak Venkatesan, M. S. (2017). An Analysis of Macroeconomic Factors Affecting Foreign Exchange Rate. *sdmimd- Journal of Management*, 8 (1), 10.
2. Kanika Khera, I. S. (2015). Effect Of Macro Economic Factors On Rupee. *Delhi Business Review*, 16 (1).
3. Twarowska, K. (2000). Analysis of factors affecting fluctuations in the exchange rate of Polish Zloty against Euro, retrieved from [www.tknowpress.net/ISBN/978-961-6914-09-3/papers/ML14-652.pdf](http://www.tknowpress.net/ISBN/978-961-6914-09-3/papers/ML14-652.pdf).

---

### **Authors' Profile**

#### **Dr. Ramakanta Prusty**

Principal,  
B.P. College of Business Administration,  
Gandhinagar

#### **Dr. Jayesh J. Tanna**

Assistant Professor,  
B.P. College of Business Administration,  
Gandhinagar

#### **Janki Ashokbhai Dave**

Research Scholar,  
Kadi Sarva Vishwavidyalaya,  
Gandhinagar

davejanki90@gmail.com

## Non-Performing Assets: A Termite for the Growth of Banks

Pratikshaben Parekh, Dr. Kamini Shah, Prof. Sandip Bhatt

### Abstract

The increasing Non-Performing Assets (NPA) is critical issue in the Indian banks. The bank offers many facilities to the customers. We witness many scams in Indian banks in last few years. Many reasons have been found that lead to increase NPAs which are market failures, willful defaults, poor supervision; poor follow up, Non co-operation from bank, poor legal framework, lack of entrepreneur skill etc. Non-Performing Assets are damaging the profit, weakening the capital structure and reducing the rating of the banks. Therefore, the researchers have made an attempt to study the impact of NPAs on the financial performance of selected private sector banks in India. The relationship between Net profit with Gross NPAs and Net NPAs has been examined using correlation. Top five private sector banks have been selected for the study. The correlation analysis of Net Profit & Gross NPA of Private sector banks has been done. The Four banks have positive correlation like HDFC Bank, ICICI Bank, Kotak Mahindra Banks & Yes Bank. Only Axis bank is having negative correlation which indicates that private sector banks focus more on their Gross NPA. All private sector banks are earning Net Profit for the last six years.

Keywords: Non Performing Assets, Private Sector Banks.

### INTRODUCTION

The word bank was obtained from an Italian word 'Banchi' or 'Bancheri' which was a term used for the action of exchanging money. Some people also suggest that the word 'Bank' was derived from 'Banque'. As per the Dictionary meaning, Bank is an institution for lending, exchanging, receiving and safeguarding money. "A bank is financial institution that accepts deposit from the public and creates credits." (en.wikipedia.org) As per P. A. Samuelson, "Banks provide services to its customers/clients and against services receive the perquisites in a different form." (www.nrbcommercialbank.com)

### FUNCTION OF BANKS

The main functions of banks are:

1. Basic function of a bank is collection of deposit and to give loans.
2. The secondary function of any bank is to sell gold and silver coins, insurance, mutual funds and some online amenities such as NEFT, RTGS etc.
3. The other functions of bank include providing safe custody services, safe deposit and locker facilities to their customers.

### OBJECTIVE OF BANKS

The main objective of the bank is to earn profit by providing services such as deposits and lending facilities and other allied services to their customers.

### CATAGORIES OF BANKS

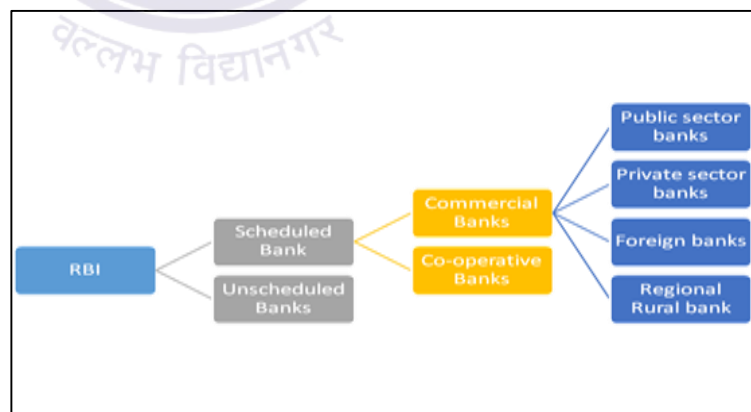


Figure-1 AN OUTLINE OF THE INDIAN BANKING STRUCTURE

### MEANING OF NPA

Non-Performing Assets means those assets which has stopped generating income for the bank. The Non-performing assets are classified loans amounts or interest amount in defaults/ arrears on payment. When payment of debt is not made within three months that amount transferred in to NPA. The three months are standard period it may be change by term and conditions of other loans.

## DEFINITION OF NPA

(a) An asset included in a leased asset which becomes Non-performing Assets when it stops to generate income for bank; ([www.iibf.org.in](http://www.iibf.org.in))

(b) A non-performing Asset is mortgage or a loan where;

1. Installment and/ or interest amount which remains 'overdue' for more than 90 days (3 months) in respect of term loan,

2. The account remains 'Out of order'; in respect of overdraft (OD) or cash credit (CC), 3. The bill which remains overdue for a period of more than 90 days (3 months) in case of bill discounted & bill purchased

4. The interest and/ or installment which remains overdue, for two crop seasons for short duration of crops & for one crop seasons for long duration,

5. The interest or installment which remains overdue for one crop season for long duration crops,

6. The amount of liquidity facility which remains outstanding for 3 months in respect of securitization transaction undertaken,

7. Derivative transaction which remains overdue for a periods of more than 3 months,

8. Bank should classify an account as NPA only if the interest/due or charged during any quarter is not serviced fully 90 days (3 month) from the end of each quarter. ([www.iibf.org.in](http://www.iibf.org.in))

(c) Overdue: Any amount due to the bank under any credit facility is known as 'overdue' if it is not paid on the due date fixed by banks. ([www.iibf.org.in](http://www.iibf.org.in))

(d) Out of order: If the outstanding balance remain continuously in excess of sectioned limit/ drawing power, In cases outstanding balance in the principal operating account is less than the sanctioned limit/ drawing power, but there are no credits continuously for 6 month as on the date of balance sheet or credit are not enough to cover the interest debited during the same period, these accounts should be treated as out of order. ([www.iibf.org.in](http://www.iibf.org.in))

## CLASSIFICATION OF ASSETS

NPA are classified into three main categories.

1. Substandard Assets- Substandard Assets are those assets which has remained NPA for a period of less than or equal to 12 months.

2. Doubtful Assets- Doubtful assets are those assets which has remained NPA for a period more than 12 months.

3. Loss Assets- Where the loss amount has not been written off wholly or partly it is identified by Auditors or banks. Those assets include into a loss assets. ([en.wikipedia.org](http://en.wikipedia.org), n.d.)

**Table-1 PROVISION NORMS OF NPA**

No.	Category	Provision Requirement
1	Substandard Assets	10 % of Standard assets.
2	Doubtful Assets	<ul style="list-style-type: none"> <li>Up to 1 year 20% of Secured loans; 100% of Unsecured loan.</li> <li>1-3 years 30% of Secured loans; 100% of Unsecured loans</li> <li>More than 3 years 100% of Secured loans; 100% of Unsecured loans</li> </ul>
3	Loss Assets	To be written off or 100% of outstanding amount in case of secured/ Unsecured loans

Source: ([www.gktoday.in](http://www.gktoday.in))

## LEGAL FRAMEWORK FOR BANKS

The RBI monitors the whole banking system through various legal laws. The Negotiable Instrument Act in the year 1881; SARFAESI Act, 2002 and The Banking Laws (Amendment) Bill, 2011 to provide a legal framework and safeguarding of the deposits of customers.

## REASONS OF NPA

Many reasons have been found that lead to increase NPAs which are market failures, willful defaults, poor supervision; poor follow up, Non co-operation from bank, poor legal framework and lack of entrepreneur skill.

## IMPACT OF NPA

1. Profitability:

Non-Performing Assets put detrimental impact on the profitability of Banks. As banks stop to earn income on one hand and on the other hand it attracts higher provisioning compared to standard assets. On



an average, banks are providing around 0.25 to 0.30 additional Provisions on increasing NPAs which is directly affecting the profitability of the banks.

#### 2. Asset (Credit) contraction:

The increased NPA put huge pressure on recovery of funds; reduce the ability of banks for lending more and it results in lesser interest income. It contracts the money stock which may lead to economic slowdown.

#### 3. Capital Adequacy:

As per Basel norms, banks have to maintain adequate capital on risk on the weighted assets on an ongoing basis. The NPA increases so, the banks must maintain more capital with them. In NPA level adds to risk of weighted assets.

#### 4. Liability Management:

Due to high NPAs, Banks tend to lower the interest rates on deposits on one hand and other hand to levy higher interest rates on advances to sustain Net Interest Margin (NIM).

This may become hurdle in smooth financial process and hurdles in banks as well as economic growth.

### **STRATEGIES USED FOR REDUCING NPA**

Non-Performing Assets are a double edged weapon which is damaging the profit, weakening the capital structure and reducing the rating of the banks. In the NPA, Pre-sanctioning and post sanctioning policy has played major role in reducing NPAs.

1. Big organization implementing the scheme of maintain structure of stress assets under sanction 54A. As per the scheme of the stressed company, debt split into sustainable and unsustainable portion. It prohibits unsustainable portion shall converted into equity and sell this stake to new customers.

2. Recovery through Lok Adalat, DRT, SARFAESI Act, filing civil suit of recovery of dues are other method of reducing Non-performing assets. ([www.bankingschool.co.in](http://www.bankingschool.co.in))

Three methods are more useful for reducing NPAs:

#### 1. Retrieval through LokAdalat:

LokAdalat is a simple and fastest way to recover the amount of NPA. The LokAdalat is known as a people's courts. The pre litigation up to Rs.20 lakh and suit filed account where grievance amount does not exceed Rs.20 lakh settled by LokAdalat. The Lokadalat is constituted under saction-19 of Legal Service Authority Act, 1987.

Kinds of LokAdalat :

- 1) Insurance LokAdalat
- 2) Prison LokAdalat
- 3) Marriage LokAdalat
- 4) Municipal Corporation LokAdalat
- 5) Electricity LokAdalat
- 6) Telecom LokAdalat
- 7) Railway LokAdalat
- 8) Pension LokAdalat

([www.bankingschool.co.in](http://www.bankingschool.co.in), n.d.)

#### 2. Recovery through Debt Recovery Tribunals (DRT):

The banks and financial Institutions may approach the DRT for recovery of the dues from any person provided the amount of debt due to bank/ financial Institution more than Rs. 10 lakh or such amount, being not less than Rs.1 Lakh rupees. There is no upper monetary ceiling for filing application with Debt Recovery Tribunals (DRT). SARFESI Act through borrowers, aggrieved party, guarantors may also approach the DRT for redressing the grievances. ([www.bankingschool.co.in](http://www.bankingschool.co.in))

#### 3. Recovery through SARFAESI Act:

The SARFAESI Act provides for Enforcement of security interest to realize the due without intervention of Courts or Tribunals. This is treated as the most effective tool of recovery of NPA under this Act.

SARFAESI demand notice, possession notice, sale notice, special care taken while taking possession of movable properties, holding the public auctions are included in the SARFAESI proceedings or under SARFAESI Act. ([www.bankingschool.co.in](http://www.bankingschool.co.in))

### **REVIEW OF LITERATURE**

Soni & Heda, "NPAS PERFORMANCE ON FINANCIAL PERFORMANCE OF PUBLIC SECTOR BANKS", (2014) has conducted a study to know the association between gross NPA and gross advances and net NPA and net advances of selected public sector banks working in India. The objective of the study was to detect any association between gross NPA, gross advances, net NPA and net profit. The result shows that the five banks taken for the study are highly suffering from NPAs. Due to these higher NPAs, the banks have adverse effect on the performance. The banks need to be more careful regarding whom they give loans and must check all the aspects of borrower.

Laveena & Kulbirsingh, "A STUDY OF NON PERFORMING ASSETS OF PUBLIC SECTOR BANKS IN INDIA", (2016) has examined NPAs of public and private sector bank of India. The objective of this research was to compare the NPA of public banks with private banks and to know the level of NPA in these banks. The results of the research showed that NPAs of the banks is constantly increased which is one of the reason that the profits of banks are diminished. Which leads to the conclusion that both public and private sector banks need to improve their loan policies in order to reduce NPA.

Rathore, Malpani, & sharma, "NON PERFORMING ASSETS OF INDIAN BANKING SYSTEM AND ITS IMPACT ON ECONOMY", (2016) has evaluated NPAs of schedule commercial banks of India and the status and impact of NPAs on this banks. The result of the study shows that there is a positive relationship of NPAs with total advances and net profit. Wrong choices made by banks lead to adverse effect on the liquidity of these commercial banks. Findings also shows that due to high NPA, banks are unable to give out new loans. This research also leads to the reason behind the high rate of NPAs of banks in india which are slow domestic growth, slow recovery in global economy and uncertain global market.

Ojha & Jha, 'IMPACT OF NON-PERFORMING ASSETS (NPA) ON WORKING OF BANKS: A COMPARATIVE STUDY BETWEEN STATE BANK OF INDIA AND OTHER PUBLIC SECTOR BANKS' (2017) has examined and compared NPAs of SBI with other public banks which operates within India. The objective of this research was to compare the impact of NPA on the working of banks and on its profitability. The findings of this research leads to the conclusion that the performance of SBI is far more better than some other public sector bank which leads to a conclusion that SBI is slowly going to the right path. Though some banks are good when compared to SBI but the steady path will lead SBI to a steady path in future.

Sukul, 'NON PERFORMING ASSETS (NPAs): A COMPARATIVE ANALYSIS OF SELECTED PRIVATE SECTOR BANKS' (2017) has conducted a study of NPAs of private sector banks such as HDFC bank, ICICI bank and Axis bank from 2011-12 to 2015-16 with the objective to understand the trend of gross NPAs and net NPAs of said banks and the correlation between net profit and net NPAs

of the said banks. The findings of this research shows that the position of gross NPAs and net NPAs in HDFC bank and Axis bank are quite positive in reducing it whereas for ICICI bank scenario differ as it shows that both net and gross NPAs are constant amplified. It was also found that HDFC bank and ICICI bank showed positive correlation coefficient and Axis bank showed negative correlation coefficient.

### **Research Gap**

Non-Performing Assets of bank have become a headache for Indian banking sector. Most of the earlier studies were based more on public sector banks only and very few studies have considered private sector banks in last five years. The researchers have attempted to examine the impact of NPAs on Indian banking sector for private sector banks.

### **RESEARCH METHODOLOGY**

#### **Identification of Research Problem:**

The increasing NPA is critical issue in the Indian banks. The bank offers many facilities to the customers. We witness many scams reveal in Indian banks in last few years. Therefore public must be mindful about the banking system and also focus on their financial position. The research problem is "A STUDY ON IMPACT OF NON-PERFORMING ASSETS ON FINANCIAL PERFORMANCE OF SELECTED PRIVATE SECTOR BANKS IN INDIA"

#### **Objectives of the Study:**

1. To study the impact of NPAs on the financial performance of selected private sector banks in India.
2. To examine the Net profit with Gross NPAs and Net NPAs.

#### **Scope of Study:**

The scope of the study is whether the private sector banks are facing a problem of NPA on their financial performance.

#### **Nature of Study:**

Existing study of Non-Performing Assets (NPAs) of private sector banks is 'Analytical' in nature.

#### Period of Study

The study has been commenced for a period of 6 years. i.e. From year 2011-12 to 2016-17.

#### Types of Data

The secondary data has been collected from annual reports, articles, books and official website of RBI and banks.

#### Sample Selection

Top five banks have been selected from private sector banks.

#### PRIVATE SECTOR BANKS

- 9) HDFC Bank
- 10) ICICI Bank
- 11) Axis Bank
- 12) Kotak Mahindra Bank
- 13) Yes Bank

#### FORMULATION OF HYPOTHESIS:

$H_{01}$ =There is no significant correlation between Gross NPA & Net Profit of Private sector Banks.

$H_{11}$ =There is significant relationship between Gross NPA & Net Profit of Private sector Banks.

$H_{02}$ =There is no significant correlation between Net NPA & Net Profit of Private sector Banks.

$H_{12}$ =There is significant correlation between Net NPA & Net Profit of Private sector Banks.

#### Level of Significance:

For the testing hypothesis, the level of significance for this study is 5 %.

#### Limitation of Study

The major limitations of the study are

1. The results of research study are mainly based on convenience of secondary data and that data may own certain drawbacks.
2. The study period is 6 years only from the year 2011-12 to 2016-17.
3. This study is concerned with all published NPAs by the RBI. It doesn't probe into the NPA management.

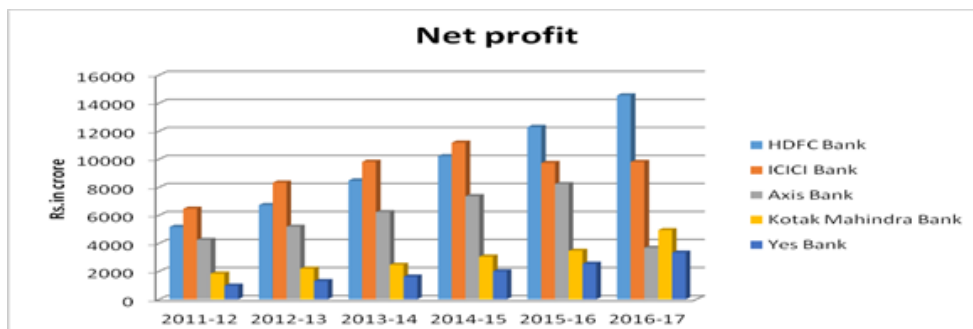
#### Further Scope of Study

1. The study is focusing on the private sector banks. However researcher can study the public sector banks, cooperative banks & foreign banks also.
2. A comparative study of all sectors banks would be an interesting area of study.
3. This study is limited for 6 Years only. So, Researcher can go for more years.

#### DATA ANALYSIS & INTERPRETATION

**Table-2 NET PROFIT OF PRIVATE SECTOR BANKS DURING STUDY PERIOD (Rs.in billion)**

Years	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
HDFC Bank	516.7	672.6	847.8	1021.5	1229.6	1455.0
ICICI Bank	646.5	832.5	981.0	1117.5	972.6	980.1
Axis Bank	424.2	517.9	621.8	735.8	822.4	367.9
Kotak Mahindra Bank	183.2	218.8	246.5	304.5	345.9	494.0
Yes Bank	97.7	130.1	161.8	200.5	253.9	333.0

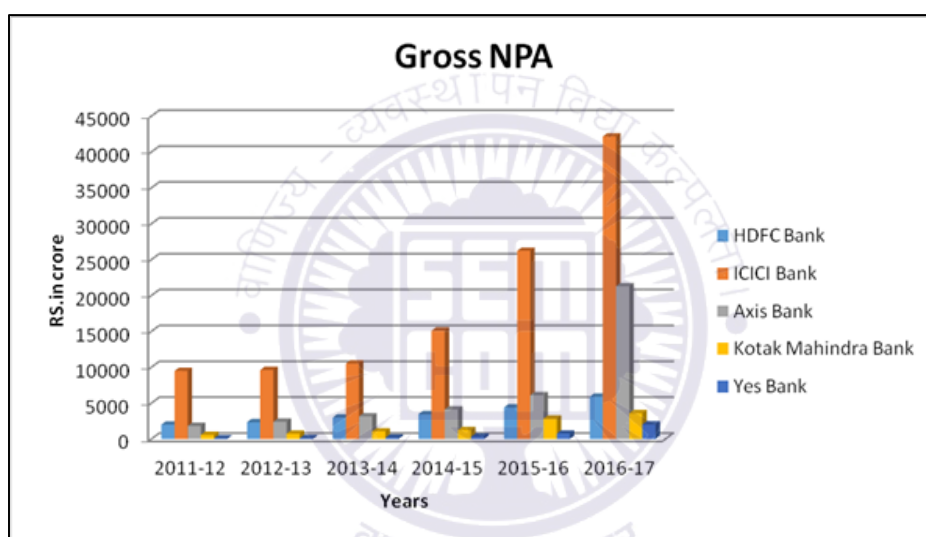


**Figure 2 NET PROFIT OF PRIVATE SECTOR BANKS DURING STUDY PERIOD**

The above Table-2 shows the Net Profit of selected Private sector banks in India from 2011-12 to 2016-17. The Net profit of HDFC bank has increased maximum followed by ICICI. The ICICI bank get a second place in the Net profit comparisons. Though the Net profit of ICICI bank has decreased in 2015-16 and 2016-17 The Kotak Mahindra bank is showing slowly increasing trend but Axis bank Net profit has decreased to Rs.367.9 billion in the year 2016-17 compared to last five years.

**Table-3 GROSS NPA OF PRIVATE SECTOR BANKS DURING STUDY PERIOD (Rs.in billions)**

Years	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
HDFC Bank	199.9	233.5	298.9	343.8	439.3	588.6
ICICI Bank	947.5	960.8	1050.6	1509.5	2622.1	4215.9
Axis Bank	180.6	239.3	314.6	411.0	608.8	2128.0
Kotak Mahindra Bank	56.1	72.0	105.9	123.7	283.8	357.9
Yes Bank	8.4	9.4	17.5	31.3	74.9	201.9



**Figure-3 GROSS NPA OF PRIVATE SECTOR BANKS DURING STUDY PERIOD**

The above Table-3 shows the Gross NPA of selected Private sector banks in India from the year 2011-12 to 2016-17. The Gross NPA of ICICI banks is the highest followed by Axis bank. The HDFC bank has more control on the Gross profit. It seems the Yes bank's performance is better than other bank so far as Gross NPA is concerned.

**Table-4 NET NPA OF PRIVATE SECTOR BANKS DURING STUDY PERIOD (Rs.in billion)**

Years	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
HDFC Bank	35.2	46.9	82.0	89.6	132.0	184.4
ICICI Bank	186.1	223.1	329.8	625.6	129.6	252.2
Axis Bank	47.3	70.4	102.5	131.7	252.2	862.7
Kotak Mahindra Bank	26.0	35.3	57.4	60.9	126.2	171.8
Yes Bank	1.7	0.7	2.6	8.8	28.4	107.2

The above Table- 4 shows Net NPA of selected Private sector banks in India for the year 2011-12 to 2016-17. The Axis bank earn highest Net NPA of Rs.862.7 billion in the year 2016-17 compared to the other banks. The Yes bank has lowered Net NPA compared to the other selected banks. But the Axis bank has substantially more Net NPA in the year 2016-17 compared to previous five years.

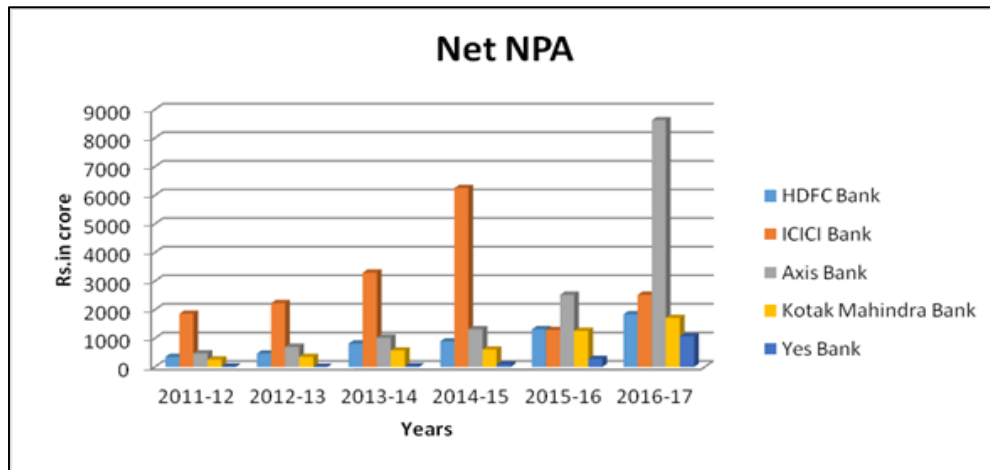


Figure-4 NET NPA OF PRIVATE SECTOR BANKS DURING STUDY PERIOD

The above Table- 4 shows Net NPA of selected Private sector banks in India for the year 2011-12 to 2016-17. The Axis bank earn highest Net NPA of Rs.862.7 billion in the year 2016-17 compared to the other banks. The Yes bank has lowered Net NPA compared to the other selected banks. But the Axis bank has substantially more Net NPA in the year 2016-17 compared to previous five years.

#### RELATIONSHIP BETWEEN GROSS NPA & NET NPA WITH NET PROFIT OF SELECTED PRIVATE SECTOR BANKS

Table-5 CORRELATION BETWEEN NET PROFITS WITH GROSS NPA & NET NPA OF HDFC BANK

Year	Net Profit (X1)	Gross NPA (X2)	Net NPA (X3)
2011-12	516.7	199.9	35.2
2012-13	672.6	233.5	46.9
2013-14	847.8	298.9	82.0
2014-15	1021.5	343.8	89.6
2015-16	1229.6	439.3	132.0
2016-17	1455.0	588.6	184.4
Correlation Coefficient r12=	0.982015		
Correlation Coefficient r23=	0.983159		

The above Table-5 indicates the correlation between Net profit with Gross NPA and Net NPA of HDFC banks for the year 2012 to 2017. The r12 is equal to 0.98 which are nearest to 1. So, there is a positive correlation between Gross NPA and Net profit. And the r23 is also 0.98 its shows the positive relationship between Net NPA and Net profit. It indicates the direct relationship with both variables.

Table-6 CORRELATIONS BETWEEN NET PROFITS WITH GROSS NPA & NET NPA OF ICICI BANK

Year	Net Profit (X1)	Gross NPA (X2)	Net NPA (X3)
2011-12	646.5	947.5	186.1
2012-13	832.5	960.8	223.1
2013-14	981.0	1050.6	329.8
2014-15	1117.5	1509.5	625.6
2015-16	972.6	2622.1	129.6
2016-17	980.1	4215.9	252.2
Correlation Coefficient r12=	0.368829		
Correlation Coefficient r23=	0.642731		



The above Table-6 indicates the correlation between Net profit with Gross NPA and Net NPA of ICICI banks for the year 2012 to 2017. The  $r_{12}$  is equal to 0.36 which are positive correlation between Gross NPA and Net profit. And the  $r_{23}$  is also 0.64 it is nearest. It shows the positive relationship between Net NPA and Net profit. The impact of Net profit increases or decreases that directly correlate with Gross NPA and Net NPA.

**Table-7 CORRELATIONS BETWEEN NET PROFITS WITH GROSS NPA & NET NPA OF AXIS BANK**

Year	Net Profit (X1)	Gross NPA (X2)	Net NPA (X3)
2011-12	424.2	180.6	47.3
2012-13	517.9	239.3	70.4
2013-14	621.8	314.6	102.5
2014-15	735.8	411.0	131.7
2015-16	822.4	608.8	252.2
2016-17	367.9	2128.0	862.7
Correlation Coefficient $r_{12}$ =	-0.41936		
Correlation Coefficient $r_{23}$ =	-0.40224		

From the above Table-7, we can observe the correlation between Net profit with Gross NPA and Net NPA of Axis bank for the year 2012 to 2017. The correlation co-efficient of  $r_{12}$  is equal to -0.41. it indicates the negative relationship of Gross NPA and Net profit as the same way  $r_{23}$  also get a negative effect. So, Axis bank in Net Profit with Net & Gross NPA is low degree of correlation.

**Table-8 CORRELATIONS BETWEEN NET PROFITS WITH GROSS NPA & NET NPA OF KOTAK  
MAHINDRA BANK**

Year	Net Profit (X1)	Gross NPA (X2)	Net NPA (X3)
2011-12	183.2	56.1	26.0
2012-13	218.8	72.0	35.3
2013-14	246.5	105.9	57.4
2014-15	304.5	123.7	60.9
2015-16	345.9	283.8	126.2
2016-17	494.0	357.9	171.8
Correlation Coefficient $r_{12}$ =	0.950543		
Correlation Coefficient $r_{23}$ =	0.966614		

The above Table-8 we observe the correlation between Net profit with Gross NPA and Net NPA of Kotak Mahindra banks for the year 2012 to 2017. The  $r_{12}$  is equal to 0.95 which are nearest to 1. So, there is a positive correlation between Gross NPA and Net profit. And the  $r_{23}$  also 0.96 it shows that positive relationship between Net NPA and Net profit. It indicates the direct relationship with both variables.

**Table-9 CORRELATIONS BETWEEN NET PROFITS WITH GROSS NPA & NET NPA OF YES BANK**

Year	Net Profit (X1)	Gross NPA (X2)	Net NPA (X3)
2011-12	97.7	8.4	1.7
2012-13	130.1	9.4	0.7
2013-14	161.8	17.5	2.6
2014-15	200.5	31.3	8.8
2015-16	253.9	74.9	28.4
2016-17	333.0	201.9	107.2
Correlation Coefficient $r_{12}$ =	0.926514		
Correlation Coefficient $r_{23}$ =	0.892142		

### THE CORRELATION BETWEEN -1, 0 AND +1:

- A correlation co-efficient of ( $r = +1$ ) which delivers that every positive increases in one variable, there is a positive increases the other variable at fixed proportion.
- A correlation co-efficient of ( $r = -1$ ) which delivers that every positive increases in one variable, there is a negative decreases in the other variable fixed proportion.
- Zero ( $r = 0$ ) means that for every increase, there isn't a positive / negative increase. The two just are not related. (www.statisticshowto.com)

### FORMULA OF KARL PEARSON CORRELATION CO-EFFICIENT

$$r = \frac{N \sum dxdy - \sum dx \sum dy}{\sqrt{(\sum dx^2 - (\sum dx)^2) * (\sum dy^2 - (\sum dy)^2)}}$$

$$\sqrt{(\sum dx^2 - (\sum dx)^2) * (\sum dy^2 - (\sum dy)^2)}$$

“In these hypothesis studies in using a t-test and calculating the test statistics with (n-2) degree of freedom RYX being coefficient of simple correlation between X and Y. This calculated value compared with the tabulated value and if calculated value is less than tabulated value, we accept the null hypothesis.” (KOTHARI)

Table-10

Bank	Variance	Mean	Rcal	Rtab	Hypothesis
HDFC Bank	Gross NPA	3506.66			
	Net profit	9572.00	$r_{12}=0.9820$	0.878	Rejected
	Net NPA	950316			
	Net profit	9572.00	$r_{23}=0.9831$	0.878	Rejected
ICICI Bank	Gross NPA	18844.00			
	Net profit	9217.00	$r_{12}=0.3688$	0.878	Failed to Reject $H_0$
	Net NPA	2910.66			
	Net profit	9217.00	$r_{23}=0.6427$	0.878	Failed to Reject $H_0$
Axis Bank	Gross NPA	6470.50			
	Net profit	5816.66	$r_{12}= -0.4194$	0.878	Failed to Reject $H_0$
	Net NPA	2444.66			
	Net profit	5816.66	$r_{23}= -0.4022$	0.878	Failed to Reject $H_0$
Kotak Mahindra Bank	Gross NPA	1665.66			
	Net profit	2988.16	$r_{12}=0.9505$	0.878	Rejected
	Net NPA	796.00			
	Net profit	2988.16	$r_{23}=0.9666$	0.878	Rejected
Yes bank	Gross NPA	572.33			
	Net profit	1961.66	$r_{12}=0.9265$	0.878	Rejected
	Net NPA	249.00			
	Net profit	1961.66	$r_{23}=0.8921$	0.878	Rejected

The above table 10 indicates the correlation of 'r12' & 'r23'. The HDFC bank has tabulated value lower than the calculated value therefore Null hypothesis is rejected in both cases. Thus, there are no relationship between Net profit & Gross NPA and also there is no relationship with Net Profit & Net NPA.

The ICICI bank has calculated value 'r12' is 0.37 & 'r23' is 0.64. So, the tabulated value is high. Therefore the Null hypothesis is accepted. So, there are relationship between Net profit & Gross NPA and also relationship with Net Profit & Net NPA.

The Axis bank has calculated value 'r12' is 'r23' is lower than tabulated value. Therefore the Null hypothesis is accepted. So, there are relationship between Net profit & Gross NPA and also relationship with Net Profit & Net NPA.

The Kotak Mahindra bank and Yes Bank has calculated value is higher than the tabulated value. Therefore the Null hypothesis is rejected. And it concludes that there is no relationship between Net Profit with Gross & Net NPA.

### **FINDINGS, SUGGESTIONS & CONCLUSION**

The study finds that there are three banks null Hypothesis could not be rejected. It means that there is a relationship between a Net Profit with Gross NPA & Net NPA.

#### **FINDINGS**

1. The correlation analysis of Net Profit & Gross NPA of Private sector banks. The Four banks have positive correlation like HDFC Bank, ICICI Bank, Kotak Mahindra Banks & Yes Bank. Only Axis bank pursuing negative correlation and that indicates that private sector banks more focuses on their Gross NPA. Due to their regulations they got a positive correlation.
2. The study of the tables compared Net profit of the private sector banks to the public sector banks. All private sector banks earning Net Profit for the last six years.

#### **SUGGESTIONS**

The Non-Performing Assets management is a very challenging task for every banker. So, It requires to take Preventive and Corrective measures for reducing NPAs in banks. These steps through banks should not only take steps to reduce the present NPA but also take precaution to avoid the future NPAs.

1. Bankers should selected proper debtors who pay timely payments of money and follow ups the all rules.
2. Bankers should be intensely study the causes of NPA and take steps for evading occurrence of NPAs.
3. Special guidelines Framed by all banks for debtors or borrowers who take credit money for their business or other works.
4. Pre Assessment & post –disbursement policies should be framed for debtors who takes Credits & Advances. So that NPA can be decline.
5. Banks should make credit retrieval policies for decreasing NPA.

6. The banks have to conduct the alertness Programmers regarding influence of NPAs on the debtors & how it will disturb the profitability of the banks.

7. Banks should more concentration on their assortment of Customers.

8. Proper assessment done by Key Personnel where banks are invested their money into Small or big project work.

9. Bankers must focus on timely approval and disbursement of credit.

10. More dedicated on Internal and external intermediaries for controlling a falsified trade practices.

11. Outstanding of Loan Account transformed into NPAs on the borrowers sides due to Lack of Planning, Diversion of Funds, Improper Monitoring, Clashes arises and No Support.

#### **CONCLUSION**

The NPA is fiery issue in the banking sector. The public sector banks have a higher Net NPA compared to Private sector banks. The banks are more concentrated on their liability and their retrieval of money which have been provided on credit to the borrowers. Now a day's banks have framed strict regulation frameworks for non-payments of funds by defaulters, debtors and insolvent persons. The banks should predominantly focus on the policy of RBI outline for recovery of NPAs. So banks should give attention on reducing NPAs to expedite the growth of Indian Economy.

#### **REFERENCES**

1. Laveena, & k. g. (2016, april). A STUDY OF NON PERFORMING ASSETS OF PUBLIC SECTOR BANKS IN INDIA. Retrieved September 9, 2017, from [http://www.indusedu.org/pdfs/IJREISS/IJREIS\\_S\\_734\\_73870.pdf](http://www.indusedu.org/pdfs/IJREISS/IJREIS_S_734_73870.pdf)

2. Ojha, A., & Jha, H. c. (2017, September). IMPACT OF NON-PERFORMING ASSETS (NPA) ON WORKING OF BANKS': A COMPARATIVE STUDY BETWEEN STATE BANK OF INDIA AND OTHER PUBLIC SECTOR BANKS. Retrieved April 26, 2018,
3. Rathore, D. S., Malpani, S., & sharma, S. (2016, december). Non Performing Assets of Indian Banking system and it's Impact on Economy. IOSR Jornal of Economics and Finance, 7(6), 21-26.
4. Soni, P., & Heda, B. L. (2014, October). NPA'S impact on Fnancial Performance of Public sector banks. Retrieved September 9, 2017, from <http://oaji.net/articles/2014/1250-1412951812.pdf>
5. Sukul, B. (2017, January). Non performing Assets (NPAs): A Comparative Aalysis of Selected Private Sector Banks. Retrieved September 9, 2017, from [http://www.ijhssi.org/papers/v6\(1\)/Version-3/H0601034753.pdf](http://www.ijhssi.org/papers/v6(1)/Version-3/H0601034753.pdf)
6. (n.d.). Retrieved may 20, 2018, from kalyan-city.blogspot.com: <http://kalyan-city.blogspot.com/2011/02/what-is-bank-introduction-definition.html>
7. (n.d.). Retrieved may 20, 2018, from en.wikipedia.org: [https://en.wikipedia.org/wiki/Non-performing\\_asset](https://en.wikipedia.org/wiki/Non-performing_asset)
8. (n.d.). Retrieved may 20, 2018, from www.gktoday.in: <https://www.gktoday.in/gk/non-performing-assets-mpa/>
9. (n.d.). Retrieved may 30, 2018, from www.bankingschool.co.in: <https://www.bankingschool.co.in/loans-and-advances/strategies-for-reducing-mpa/>
10. (n.d.). Retrieved may 25, 2018, from www.caclubindia.com: [https://www.caclubindia.com/files0512/8\\_reporting\\_format\\_for\\_non\\_performing\\_assets.pdf](https://www.caclubindia.com/files0512/8_reporting_format_for_non_performing_assets.pdf)
11. (n.d.). Retrieved may 20, 2018, from myimsv2.imsindia.com: <http://myimsv2.imsindia.com/2016/05/28/banking-structure-in-india/>
12. (n.d.). Retrieved May 20, 2018, from www.myimsv2.imsindia.com: <http://myimsv2.imsindia.com/2016/05/28/banking-structure-in-india/>
13. (n.d.). Retrieved May 5, 2018, from www.iibf.org.in: <http://www.iibf.org.in/documents/IRAC.pdf>
14. (n.d.). Retrieved February 2, 2018, from en.wikipedia.org: [https://en.wikipedia.org/wiki/Bank#Types\\_of\\_banking](https://en.wikipedia.org/wiki/Bank#Types_of_banking)
15. KOTHARI, C. R., & GARG, G. (2014). RESERCH METHODOLOGY METHODS AND TECHNIQUES. NEW DELHI, GUJARAT, INDIA: New Age International (P) Limited.
16. (n.d.). Retrieved may 22, 2018, from en.wikipedia.org: [https://en.wikipedia.org/wiki/HDFC\\_Bank](https://en.wikipedia.org/wiki/HDFC_Bank)
17. (n.d.). Retrieved may 22, 2018, from en.wikipedia.org: [https://en.wikipedia.org/wiki/ICICI\\_Bank](https://en.wikipedia.org/wiki/ICICI_Bank)
18. (n.d.). Retrieved MAY 22, 2018, from en.wikipedia.org: [https://en.wikipedia.org/wiki/Axis\\_Bank](https://en.wikipedia.org/wiki/Axis_Bank)
19. (n.d.). Retrieved MAY 22, 2018, from en.wikipedia.org: [https://en.wikipedia.org/wiki/Kotak\\_Mahindra\\_Bank](https://en.wikipedia.org/wiki/Kotak_Mahindra_Bank)
20. (n.d.). Retrieved MAY 22, 2018, from en.wikipedia.org: [https://en.wikipedia.org/wiki/Yes\\_Bank](https://en.wikipedia.org/wiki/Yes_Bank)
21. (n.d.). Retrieved may 24, 2018, from www.moneycontrol.com: <http://www.moneycontrol.com/india/stockpricequote/banks-private-sector/rblbank/RB03>
22. (n.d.). Retrieved JUNE 6, 2018, from www.statisticshowto.com:
23. <http://www.statisticshowto.com/probability-and-statistics/correlation-coefficientformula/>
24. (2014, October). Retrieved 2018, from <http://oaji.net/articles/2014/1250-1412951812.pdf>
25. (2018, May). Retrieved from www.rbi.org:
27. <http://dbie.rbi.org.in/DBIE/dbie.rbi?site=publication!17>

## Authors' Profile

### Ms. Pratikshaben N. Parekh

Research scholar,  
Department of Business Studies,  
Sardar Patel University

### Dr. Kamini Shah

Associate Professor & Research Guide  
Department of Business Studies,  
Sardar Patel University  
[kaminivvn@gmail.com](mailto:kaminivvn@gmail.com)

### Prof. Sandip Bhatt

Head  
Department of Business Studies,  
Sardar Patel University



## Understanding of Green Marketing among Future Managers: An empirical analysis

Dr. Hitesh D. Vyas

### Abstract

The sustainable marketing emphasized on customer needs, organizational goals, and the process compatible to the ecosystem (Donald Fuller, 1999). The concepts of environmental marketing (Peattie, 2005), environmental awareness in the society for the eco-friendly features (Mintel, 1991; Roper Organization 1990), witnessed a surge in green product introduction and green marketing communications. This study is exploratory in nature. As the literature have been found from the various sources on the green marketing and related factors based on primary studies, very few studies have used secondary sources for their work. The present study is based on primary data collected from the 200 commerce and management students of M K Bhavnagar University, Bhavnagar, by a close ended questionnaire on 5 points scale based on study of Anne Marie (2008). A reliability test has done were, Cronbach's Alpha found as 0.767 and Cronbach's Alpha based on items were found 0.745. Collected data has been tabulated and cross tabulated, to draw inference from the data interpretation chi-square test and ANOVA has been tested on the SPSS. Objective of the study is to examine understanding of the green marketing concept and its awareness among the future managers in India.

### Introduction

The sustainable marketing emphasized on customer needs, organizational goals, and the process compatible to the ecosystem (Donald Fuller, 1999). The concepts of environmental marketing (Peattie, 2005), environmental awareness in the society for the eco-friendly features (Mintel, 1991; Roper Organization 1990), witnessed a surge in green product introduction and green marketing communications in the U.S and in Europe (Ottman, 1993), many MNCs responded to societal green concerns by products and production systems (Vandermerwe & Oliff, 1990). While on other hand, false and exaggerated 'green' advertisements and claims came under the scrutiny of advertising watchdogs in those days, which negatively affected consumer's perception about 'green' (Peattie, 1992; Ottaman, 1992).

### Green/ environmental concerns

Green policies/products are profitable it can reduce costs; it can shape future regulations and reap first-mover advantages (Porter and van der Linde, 1995; Rugman and Verbeke, 2000). However, this does not seem to be the norm within and across most industries. Many believes that green policies are expensive; especially after the initial gains – the 'low hanging fruit' – in reducing end-of-the-pipe pollution have been harvested (Walley & Whitehead, 1994, Okereke, 2007). Moreover, Ottman (1993) has used 'green' as to charge high price.

Many such environmental concerns' claims have been dismissed as 'public relations greenwash', as Malaysian Palm Oil Council's campaign claiming palm oil industry was good for the environment invited severe criticism from UK Advertising Standards Authority who later banned airing the campaign (Wright, 2008). Norwegian authorities banned all car advertisements mentioning that their vehicles are "green", "clean" or "environmentally friendly" as all car production will lead to carbon emissions (Wright, 2008). Marketing concept underpins the philosophy of being customer centered. Toyota has become quite successful with their hybrid cars. Green marketing refers to the development and distribution of ecologically-safe products. It refers to products and packages that have one or more of the following characteristics: (1) are less toxic, (2) are more durable, (3) contain reusable materials, or (4) are made of recyclable material. In short, these are products considered "environmentally responsible". In West Germany and Canada, Procter & Gamble has found high consumer acceptance of pouches of liquid detergents and fabric softeners so consumers can refill rather than discard large plastic bottles (Mohamed, 2007).

### Review of literature

Business organizations are considered to be the source of most of the environmental problems and facing a growing pressure to become responsible and to reduce negative impacts on society and natural environment (Molina-Azorin, et al., 2009). Handling this environmental concern well can not only sustain a company's competitiveness, but also increase its market share and customer loyalty (D'Souza, et al., 2006). Henceforth, environmental concerns have begun to reshape the landscape in which businesses complete. Consequently, the natural and physical



environment, traditionally discussed as an external influence on the process and content of marketing management, is now become central strategy (Hart 1995; Shrivastava 1994) of organization. Though the idea of integrating environmental issues into process and content of marketing strategy is not new, and moved into mainstream marketing consciousness over the last ten years (Menon & Menon 1997).

Despite over many decades of research in this field, there remain many aspects of businesses' green marketing practices that still to need fully understand such as drivers that propels green marketing and its effect on business performance. As Chamorro and Banegil, 2006 opined that environmental or green marketing could also serve as an important business philosophy to maximize its business performance especially reduction of production costs (Shrivastava, 1994), improving business' external market image and corporate reputation (Miles and Covin, 2000).

Accordingly, businesses are subject to pressures and scrutiny from various parties inside and outside the country in which they operate to produce green products and embrace green commitments viewed as central focus of investigation in world at large. However, to understand the underlying factors that contribute to a business' propensity to engage in green marketing activities, it is necessary to look behind driving inertia which propels businesses to adopt green orientation and focuses on understanding the antecedents of green marketing with a degree of accuracy might be served as a good starting point.

Going green in India, businesses in 1970s & 80s denied the impact of their practices on environment, but today the paradigm shift has been changed with the series of highly visible practices by accepting their responsibility to do no harm to the environment. As a result, Ashok Leyland, Maruti Suzuki Ltd, Siemens Ltd, Aditya Cement Ltd., Grasim industries Ltd., ABB India, Godrej Group., Hero Honda, IOC for green fuels, GAIL, NHPC, Power Finance Corporation of India Ltd., are just a few examples of business which practices green marketing in India (Agarwala, T, 2005). Moreover, Green Factor conducted a survey which reveals that India emerges a leader in green IT potential (India Review, [www.indianambassy.org](http://www.indianambassy.org)).

According to Charter on Corporate Responsibility for Environmental Protection (CREP), Central Pollution Control Board (CPCB), Ministry of Environment and Forests, Government of India, and industries from 17 polluting sectors finalized a voluntary clean-up plan in 2008 (<http://www.envfor.nic.in/welcome.html>). This growing wave of addressing environmental issues and business responsiveness results in high intensity of green product introductions (Bhaskaran et al., 2006; Kangun et al., 1991). As a result, there is now

general consensus within the business community that environmental or so-called green market, is real and growing (Coddington 1993; Prothero 1990). For example, growing number of business executives declared themselves committed environmentalists and integrated environmental issues in their business strategies (Porter and van der Linde, 1995; Shrivastava, 1995; Walley and Whitehead, 1994). In this, the integration of environmental perspectives into sustainable development and management decision making agendas has been emphasized as crucial and focal point. It appears that it is good business practice to be green as this strategy tends to promote profitability, improve employee motivation and commitment in addition to customer loyalty (Forte and Lamont, 1998). While various writers in the area of green marketing are questioning the influence of practicing environmentalism in business (Wasik, 1996; Drumwright, 1994) requires further exploration.

There is a perception that "going green" increases the costs for all concerned. This is not the case, however, and "going green" can not only save companies money for example 3M's 'Pollution Prevention Pays' policy (Lee, 1994), but can also lead to the development of new products and technologies. (Prothero, 1996). Preventing pollution enabled the firm to save control costs, input, and energy consumption, and to reuse materials through recycling (Hart, 1997;). By practicing environmentalism, businesses learned to improve efficiency (Schmidheiny, 1996;), resulting into high ecological reputation (Miles and Covin, 2000) and a positive connection between environmental and firm performance (Miles and Covin, 2000; Orsato, 2006). Despite all of this, there is a need for more research on and discussion about the role of the environment in marketing strategy and business performance in specific (Menon & Menon, 1997). Moreover, evidence from earlier research suggested that compliance with environmental regulations incurs significant costs, reducing the capacity to compete (Jaffe et al., 1995). Some studies found that businesses trying to enhance environmental performance draw resources and management efforts away from core areas of business, resulting in lower profits (Hull and Rothenberg, 2008; Klassen and Whybark, 1999).

The last two decades have witnessed a notable increase in both interest and reactions to the notion of preserving the environment. This was attributable to the increasing statutory requirements of government policies and regulations, the pressure from consumers and the life-threatening of global ecosystem deterioration (Corbett and Kleindorfer, 2001). So, people were increasingly accusing behaviours that cause harm to the environment. Public concern on environment made promoting market value of a clean image and the importance of

the public's perception of the environmental friendliness (Chinander, 2001). Moreover, one of the influencing bodies that create pressure on businesses was environmental groups and India is no exception.

Focusing on drivers and business performance, Lagerak, Peelen & Van der Veen (1998) suggested a relationship between business' green marketing with business performance and the pushing factors for businesses to adopt green marketing called 'drivers'. It can be called as motivators that induce business organizations to adopt Green marketing or environmentally-friendly activities. These drivers are expected to contribute and exerted a pressure to the diffusion of green marketing among business. However, studying the drivers of 'Business' Green Marketing Adoption' among Indian businesses has been a research area of recent origin. This study, therefore, is an effort to fill this gap.

This study **objective of the study** is to examine understanding of the green marketing concept and its awareness among the future managers in India.

The **hypothesis of the study** is, "there is no significant difference in understanding of green marketing concept and its awareness among the future managers in India".

#### Research methodology

This study is exploratory in nature. As the literature have been found from the various sources on the green marketing and related factors based on primary studies, very few studies have used secondary sources for their work. The present study is based on primary data collected from the 200 commerce and management students of M K Bhavnagar University, Bhavnagar, by a close ended questionnaire on 5 points likert's scale based on study of Anne Marie (2008). A reliability test has done were, Cronbach's Alpha found as 0.767 and Cronbach's Alpha based on items were found 0.745. Collected data has been tabulated and cross tabulated, to draw inference from the data interpretation chi-square test and ANOVA has been tested on the SPSS.

**Table 1 of Reliability test**

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.767	.745	19

Table 1 shows that Cronbach's Alpha found 0.767 therefore the scale has higher reliability value as per the Turkey's test, according to the Bagozzi and Yi (1988), if the alpha value is greater than 0.5 or reaching 1.0, the measuring instrument is having high reliability.

**Table 2 of Respondents' profile**

Respondents'	in numbers	in %
<b>Gender</b>		
Girls	124	62.00
Boys	76	38.00
<b>Parents' Annual Income</b>		
Up to 300,000	46	23.00
Up to 500,000	90	45.00
500,000 and more	64	32.00
<b>Education</b>		
Graduate	128	64.00
Post Graduate	72	36.00
<b>Parents' Education</b>		
Secondary	44	22.00
Graduation	76	33.00
Post Graduation	34	17.00
Other	46	23.00
<b>Parents' Profession</b>		
Service	24	12.00
Professional	56	28.00
Self Employed	62	31.00
Other	58	29.00

Table 2 indicates demographic profile of the respondents, which includes 76 boys and 124 girls' respondents, the respondents are of younger age group, and it also includes respondents' parents' different occupation, income and education. It shows that the respondents have different in their profile.

**Table 3 of Chi-square test for understanding of the green marketing concept and awareness among the future managers in India.**

	UG/PG	Gender	profession	income	education
Chi-Square	15.6	11.5	18.400 <sup>a</sup>	14.68	19.680
	80 <sup>b</sup>	20 <sup>b</sup>		0 <sup>c</sup>	a
Df	1	1	3	2	3
Asymp. Sig.	.000	.001	.000	.001	.000

Data of table 3 shows the Chi-square test for the understanding of the green marketing concept and its awareness among the respondents, result of the Chi-square found as 15.680 for education of respondents", 11.520 for the gender, 18.400 for parents' profession, 14.680 for parents' annual income and 19.680 Chi-square found for the parents' education. The test reveals that there is positive relationship among the aspects tested. It means that understanding of the green marketing concept and its awareness among the respondents is positive, population under the research area is much alert and aware about the green marketing.

It may be because of the government and corporates efforts, activities and implementation of the concept effective manner. A campaign of 'Swachh Bharat', 'Solar rooftop electricity generation', and 'Har Ghar me Shuachalay' have contributed in the understanding for the go green and clean.

**Table 4 of Hypothesis testing**

ANOVA with Cochran's Test						
		Sum of Squares	df	Mean Square	Cochran's Q	Sig
Between People		580.454	199	2.917		
Within People	Between Items	288.455	18	16.025	380.879	.000
	Residual	2437.966	3582	.681		
	Total	2726.421	3600	.757		
Total		3306.875	3799	.870		
Grand Mean = 2.16						

The above table 4 shows that the calculated value of Q is 380.879 at 5% level of significance. Hence the alternate hypothesis is accepted, that is there is significant difference in mean score of understanding of green marketing concept and its awareness among by the respondents. So, it can reveal the understanding of green marketing as a concept and its awareness among the future managers in India is different, it may because of the different demographic aspects of the them and also because of the level of conceptual consideration regarding the green marketing.

### Implications and Conclusions

Green marketing concept itself example of understanding about the care of our mother earth. But its practice and adaptation only become effective and actual by the public understanding and awareness. Because, to exercise anything understanding and awareness plays important role, as the population under the present study is younger in age and are used too to the modern gadgets like smartphone and social media, it also plays important role in the understanding and awareness. So, through the results of the present study it can be depicted that if government and corporates are inputs good planned efforts and implementation in effective manner for concept like green marketing, people would follow it rather opposed.

Prohibited and banned plastics bags 'Zabala' from the sellers' shop has become effective, people also have started to carry the clothed/cotton bags 'Theli' for bring home the merchandised.

The present study concludes that the green marketing concept could become more effective and acceptive if it persuades in this manner. It needs to promote much and in various ways, which affects public life and can become acceptable without or with less pay for it. So, if green become much greed, will not become acceptable.

### References

1. Agarwala, Rina. (2008), 'Reshaping the social contract: emerging relations between the state and informal labor in India', Theory and Society, 37(4): 375-408.
2. Anne Marie Zwerg-Villegas (2008), "Incidences and Analyses of Green Marketing Strategy in Colombian Exports" AD-MINISTER Universidad EAFIT Medellín Número 13 July - December, 2008: 9-19.
3. Bagozzi, R.P. and Yi, Y. (1988), "On the Evaluation of Structural Equation Models", Academy of Marketing Science, pp. 76-24.
4. Belz, F.M. (2006). Marketing in the 21st Century, Business Strategy and the Environment. Sage Publications London
5. Bhaskaran Suku, Michael Polonsky, John Cary & Shadwell Fernandez (2006), Environmentally sustainable food production and marketing: Opportunity or hype? British Food Journal 108(8) • August 2006
6. Chamorro Antonio & Tomás M. Bañegil (2006) Green marketing philosophy: A study of Spanish firms with ecolabels, Corporate Social Responsibility and Environmental Management 13(1):11 – 24.
7. Chinander, Karen Dye, (2001), Aligning Accountability and Awareness for Environment Performance in Operations, Production and Operations Management 10(3):276 – 291.
8. Coddington, Walter. (1993). Environmental Marketing: Positive Strategies for Reaching the Green Consumer. New York: McGraw-Hill.
9. Corbett Charles j. & Paul R. Kleindorfer, (2001) Environmental management and operations management: (manufacturing and ecologistics),



- Productions and operations management, Volume10, issue2, pages 107-111.
10. D'Souza, Clare, Taghia, Mehdi, Lamb, Peter & Peretiakos, Roman. (2006). Green Products and Corporate Strategy: An Empirical Investigation. Emerald Society and Business Review, 1(2), 144-57.
  11. Drumwright ME. 1994. Socially responsible organizational buying: environmental concerns as a noneconomic buying criterion. Journal of Marketing 58: 1-19.
  12. Forte, Monique & Lamont, Bruce, (1998), The Bottom-Line effect of Greening (Implications of Ecological Awareness), The Academy of Management Executive, 12(1), 89-91.
  13. Fuller, Donald A. (1999), Sustainable Marketing. Sage Publications London.
  14. Gaski, F. (1985). 'Dangerous Territory: The Societal Marketing Concept Revisited', Business Horizons, vol. 28, pp. 42-7.
  15. Green Prothero Andrea (1990), Consumerism and the societal marketing concept: Marketing strategies for the 1990's, Journal of Marketing Management 6(2):87-103 •
  16. Grunert S.C. (1993), "Everybody Seems Concerned About the Environment but is this Concern Reflected in Consumer's Food Choice?", European Advances in Consumer Research, Vol. 1, pp. 428-433.
  17. Hart, Stacey & Ahuja, Gaurav, (1996), Does It Pay to Be Green? Business Strategy and the Environment, 5, 31-31.
  18. Hull Clyde Eirikur & Sandra Rothenberg, (2008), Firm performance: the interactions of corporate social performance with innovation and industry differentiation Strategic management journal, Volume29, Issue7, , Pages 781-789.
  19. José F. Molina-Azorín, Enrique Claver-Cortés, Maria D. López-Gamero, Juan J. Tarí, (2009) "Green management and financial performance: a literature review", Management Decision, Vol. 47 Issue: 7, pp.1080-1100
  20. Kangun, N., Carlson, L., & Grove, S.J. (1991). Environmental advertising claims: A preliminary investigation. Journal of Public Policy and Marketing, 10(2), 47-58.
  21. Klassen, R.D. and Whybark, D.C. (1999) The Impact of Environmental Technologies on Manufacturing Performance. Academy of Management Journal, 42, 599-615.
  22. Langerak, F., Peelen, E., & van der Veen, M. (1998). Exploratory results on the antecedents and consequences of green marketing. Journal of the Market Research Society, 40(4), 323-335.
  23. Menon, Anil & Menon, Ajay. (1997). Enviropreneurial Marketing Strategy: the Emergence of Corporate Environmentalism as a Market Strategy. Journal of Marketing, 61(2), 51-67.
  24. Miles, Morgan & Covin, Jeffrey, (2000), Environmental Marketing: A Source of Reputational, Competitive, and Financial Advantage. Journal of Business Ethics, 23(3), 299-311.
  25. Mintel (1991&1995). The Green Consumer Report. London: Mintel.
  26. Mohamed M. Labbai (2007) Social Responsibility and Ethics in Marketing International Marketing Conference on Marketing & Society, 8-10 April, 2007, IIMK
  27. Okereke, Chukwumerije. (2007). An Exploration of Motivations, Drivers and Barriers to Carbon Management. The UK FTSE 100: European Management Journal 25(6): 475-486
  28. Orsato Renato J. (2006), Competitive Environmental Strategies: When Does it Pay to Be Green? California management review, Vol 48, Issue 2, 2006
  29. Ottman, J.A. Stafford E.R & Hartman C.L. (2006). Avoiding Green Marketing Myopia, Ways to Improve Consumer Appeal for Environmentally Preferable Products, Environment. Volume 48, No.5 pp 22-36
  30. Peattie, K. & Ring T. (1993). Greener Strategies: the Role of the Strategic Planner. Greener Management International, Vol.3.
  31. Porter, M.E. & van der Linder. (1995). Green and Competitive: ending the stalemate. Harvard Business Review, Vol.73 No.5.
  32. Praveen Balakrishnan Nair, 2010, Green Markets: A Bungled Opportunity? Business and Accountancy, INTI University College, Malaysia, Volume 4, Issue 2/4
  33. Roper Organization. (1992). Environment Behaviour, North America: Canada, Mexico, United States. Commissioned by S.C. Johnson & Sons Inc.
  34. Rugman A, Verbeke A. 2000. Environmental regulations and the global strategies of multinational enterprises. In Coping with Globalization, Prakash A, Hart JA (eds). Routledge: London; 77-93.
  35. Schmidheiny S, Zorraquin FJL. 1996. Financing Change. MIT Press: Cambridge, MA.
  36. Shrivastava P.: 1994, Castreated Environment: Greening Organizational Studies. Organization Studies
  37. Tuttle, T. & Heap, J. (2008). Green Productivity: Moving the Agenda. International Journal of Productivity and Performance Management, Vol.57 No. 1, pp. 93-106
  38. Vandermerwe, S. & Oliff, M. (1990). Customers Drive Corporations Green. Long Range Planning, Vol.23 No.6, pp. 10-16
  39. Walley N, Whitehead B. 1994. It's not easy being green. Harvard Business Review May-June: 46-51.
  40. Walley N, Whitehead B. 1994. It's not easy being green. Harvard Business Review May-June: 46-51.
  41. Wasik Barbara H. & Richard N. Roberts, (1996), Evaluating the 1992 and 1993 community integrated service systems project, 35-49 : Spring 1996.
  42. Wright, T. (2008). Global: False Green Ads Draw Global Scrutiny. Wall Street Journal. January 30th, 2008

## Author's Profile

### Dr. Hitesh D. Vyas

Associate Professor & Head,  
Department of Business Management,  
M. J. College of Commerce,  
Bhavnagar University

vyashitesh16@gmail.com

## Defence Forces and the Growth of Indian Economy

Beji Mathews

### Abstract

Defence expenditure is one of the most important factors in government budget allocations of all countries and a major user of scarce economic resources.

The relationship between military expenditure & economic growth has been studied often. A positive relation between defence spending & economic growth is possible in developing countries as larger military spending provides a peaceful environment for investments as also it could spur economic growth.

Defence Forces impact the economy of the country in many ways, both directly & indirectly. Each country is unique and the effect of defence spending varies from country to country.

Strong economic growth does not in any way imply automatic expansion of military spending and increase in capabilities. The objective of this paper is to study the contribution of Defence Forces in the growth of the Indian Economy.

Key Words – Defence expenditure, Economic growth, Human resources, Management, Revenue expenditure & Offset policy.

“Faster Government spending, particularly on military, accounted for nearly half of acceleration in economic growth since mid-2017”

Wall Street Journal

### Introduction

1. It is common belief that the defence forces is a non-productive arm of the country and defence expenditure is a waste of valuable resources which could be put to better use in the infrastructure, education & medical/health sectors, where-in the country lacks advancement. For the common man who does not understand the complexities of modern international politics and the relationship between economics & a country's status in the international arena, it could constitute a simplistic view. However, since beginning of human kind, men have been at war with each other. The intrinsic nature of man to establish dominance over the other and the supremacy of races has ensured that communities and countries are constantly at war with each other. Human kind has always been and probably will always be in conflict. In the present world wherein, the population is constantly increasing and resources reducing, the conflict is only likely to continue growing.

2. The study of the relationship between defence spending and the growth rate of the economy has attracted a lot of attention, while producing interesting results. Available literature discusses two different approaches in which defense expenditure may affect growth rate of the economy (Richard Wolff, 2012): -

(a) **Keynesian Approach:** With increase in defence expenditures, aggregate demand will increase which in turn will cause output and employment to grow. Hence, defence spending brings positive effects on the growth of the economy (Narayan, 2007).

(b) **Neoclassical Approach:** Increase in defence expenditure will cause an increase in overall expenditure of the government, which in turn will edge out private investment. It relies on the primary role of aggregate supply. Defence expenditure is funded either by taxes or by loans. Taxes will reduce private savings, causing increased demand for funds & consequent increase in interest rates. The increased loans will squeeze funds & cause reduction in private investments. The overall reduction in private investment will cause reduction in employment and consequently output. Hence it brings out the negative effects.

3. Different studies have reached differing conclusions on the relation between defence expenditure & the growth of the economy.

(a) A large number of studies have found that increase in defence expenditure per soldier increases GDP per capita. Arms imports also were found to have a positive impact. Defence expenditure was found to cause the economy to grow while non-military expenditure was found to affect growth rate stronger (J Yildirim, 2005).



(b) Many of the studies have concluded that defence expenditures have a negative effect on the growth of the economy. The negative impact has been found to be more severe in low income & middle-income Economies (A Cappelen, 1984).

(c) Some of the studies have found that defence spending does not affect economic growth significantly (Alexander, 1990).

(d) Studies have also indicated that defence spending have a positive impact when considered over a larger period of time however not so over the short term (Zobayer, 2019).

(e) Relationship study on the subject has also revealed that military expenditure has a positive impact on less industrialized & developing countries and a negative impact on highly industrialized nations (Islam, 2015).

(f) Finally, some papers also suggest that while defence spending positively impacts the economy to a certain limit of expenditure after which it tends to have a negative impact (Tiwari, Jan 2011).

4. It is commonly understood that a variety of non-material factors significantly increase military power. These may include democracy, human capital, amicable civil military relation etc. In hundreds of battles since time immemorial, it has been seen that the economically stronger side always over powered the poorer side. The non-material factors seem to become irrelevant when economic development is taken into account. Hence, the concept of military power takes into account both the quantity of the state's resources and its level of economic development.

5. It is obvious that the amount that a state spends for developing and maintaining its military benefits the country in more ways than one. A clear relation between the military expenditure and the economy of a country has become well established and the emphasis of this article will be to bring out the benefits that could accrue through the Defence Forces of the country for the development of the economy (Benoit, 1973).

#### **Positive Role of Defence forces**

6. Technology: If we go down in history it can be seen that most modern inventions and discoveries have been for defence / military purposes. Before the commencement of the world wars and through its conduct, there has been a spate of inventions and discoveries. They have subsequently been put to

great use for non-military purposes. The internet, nuclear power, space programs, communication equipment, mapping & survey equipment are all examples of the same. Any new technology, not developed for military, did find extensive use for military purposes. Dual use technology, has become the buzz word in today's infrastructure & technological development.

7. Management: It is a known fact that modern day management has been derived from military planning and techniques of logistics, man management, transportation and various other processes which originated from the defence laboratories and battle fields. The management philosophies practiced by the military over the ages have found its way into the theories & principles of modern management. The military machine being a very complex structure with a large number of verticals, horizontals & grid structures for inter relationships, has over a period of time developed various processes & procedures for management, which have been adopted by modern institutions & the corporate world.

8. Human Resources: The most important benefit of the armed forces is that it gives a large number of trained manpower to the community every year. Every year the armed forces compulsorily discharges over 50,000 young men & women from its 1.3 million strong military. These constitute a pool of well trained, disciplined and dedicated manpower. These are soldiers with a nationalistic fervor, secular outlook and important skills that they learnt in the forces. The typical nature of their job in the forces necessitates operating by defined rules and norms, which guide their behavioral development, interpersonal relations & conduct with their peers & subordinates in the environment. Over the years, recognition of the important role of military personnel in the safety & security of the country has gained ground. Coupled with this recognition, is the understanding that this available manpower is an important resource that can be utilized towards a constructive role in nation building.

9. Disaster Management & Peace Time Role: The armed force, as an arm, is a very important asset with the government, which can be utilised effectively during peace time for various tasks. The projection of National Power is done through the armed forces of the Nation. This includes friendly visits by personnel, visit to ports by Naval ships, participating in joint training and exercises with different

countries as also participation in various UN sponsored missions around the world. Exchange of training resources, infrastructure and resource personnel with friendly countries constitute a major component of diplomatic relations and world perception. Besides, a very important activity for trained personnel of the defence during peace time is their participation & efforts during Disasters - manmade or natural. It is a time when the state machinery is well stretched and all arms of the defence; Army, Navy and the Airforce come in handy. Over the years the contribution of the defence forces in all types of disasters, be it earthquakes, tsunami, rail accidents, floods, terrorist attacks, other accidents etc, have been well recognised. Though the defence forces are not the first respondents, it is invariably seen that they are the ones to respond first and their contribution to disaster management is immense and invaluable.

10. Revenue Expenditure: To maintain a large defence force of 1.3 million, a huge amount of money is required to be spent. Routine expenditure to maintain such large human resource pool - including pay & allowances, rations, medical treatment etc as also machinery and equipment, at such a large scale, requires large funding. This amount when ploughed into the economy encourages growth of an entire ecosystem. Besides, the construction of defence infrastructure, capability development and capacity enhancement leads to growth in employment. Cantonments which came up outside city areas are typical examples of how the economy grows around the defence establishments.

11. Defence Procurement & Offset Policy: India is a major importer of defence equipment and a sizeable sum of foreign currency is spent for import of equipment. To reduce the strain on foreign currency holding, an important policy guideline is the 'Offset Policy'. This mandates that the seller company provisions 30% to 50% of the cost of equipment from Indian manufactures. This ensures that a sizable amount of money spent on defence procurement is ploughed back into the economy. This encourages local collaboration to indigenize major parts and assemblies of the equipment, which boosts the Indian economy. Besides, to achieve the offset targets, seller companies are likely to transfer technology to Indian industries. While the aim of the policy is to indigenize the equipment and to assist the economy, further benefits accrue from it.

(a) The offset is likely to cause technology transfer which will ensure private sector participation in defense deals.

(b) As offset process progresses, it can lead to 'Offshoring'. Having lower labour costs, manufacture of equipment or major components could take place in the country elevating it to a defence production & servicing hub.

(c) The entry of global firms into the manufacturing sector in India and the pumping of funds into the domestic market will kick start an entire eco system of lower tier manufacturing firms which will continue to enjoy assured orders as defence expenditure can never dry up.

12. With the government's policy of 'Make in India' being extended to defence production also, a major boost is expected to the Indian economy. The policy shift, to allow private participation in defence production will ensure large influx of funds into the manufacturing sector. We are already seeing collaboration of large companies with foreign entities to create production hubs in the country. The alignment of the Defence policies with the Skill Development Policies of the Central Government as also the 'Make in India' and 'Digital India' policy initiatives is likely to further contribute to the growth of the economy.

13. Though the Defence Forces continue to be termed a non-productive arm of the nation, all funds spent on the defence of the country and used for building war capabilities tend to benefit the economy in many ways. It is interesting that money being spent for destructive purposes can also be the cause of huge economic growth in the country. In conclusion, a strong, well trained and professional defence force can be a great asset for the country. Tweaking and aligning policies for defence with that of the country will generate greater benefits to the growth of the economy.

## **References**

- [1] A Cappelen, G. B. (1984), "Military Spending and Economic Growth in OECD Countries", Journal of Peace Research.
- [2] Alexander, W. (1990), "Impact of Defence Spending on Economic Growth", Defence Economics.
- [3] Benoit, E. (1973). "Defence and Economic Growth in Developing Countries", Boston: Lexington Books.
- [4] Islam, M. O. (2015), "The Relation between Military Expenditure & Economic Growth in Developing Countries: Evidence from a Panel of 41 Developing Countries", IOSR Journal of Economics and Finance (IOSR-JEF).
- [5] J Yildirim, S. S. (2005), "Military Expenditure and Economic Growth in Middle Eastern countries" Defence and Peace Economics.

- [6] Narayan, P. S. (2007), "The Effect of Military Spending on Economic Growth and Unemployment in Mediterranean Countries", International Journal of Economics and Financial Issue.
- [7] Richard Wolff, S. R. (2012). "Contending Economic Theories", London: The MIT Press.
- [8] Tiwari, S. (Jan 2011). "Does Defence Spending Stimulate Economic Growth in India", MPRA.
- [9] Zobayer, H. a. (2019), "Effect of military expenditure on economic growth: India, Pakistan and China", Asian Journal of German and European Studies.

---

## **Author's Profile**

**Beji Mathews**

Research Scholar

Guru Kashi University  
Bhatinda, Punjab

bejim39@hotmail.com



## Submission Guidelines:

### Submission Requirements:

Papers submitted for publication should be exclusively written for this journal and should not have been published or sent for publication elsewhere. The papers submitted should evince serious academic work contributing new knowledge or innovative critical perspectives on the subject explored.

- Each paper must be accompanied by:
  - I. A declaration that it is an original work and has not been published anywhere else or send for publication.
  - II. Abstract of paper about **100-200 words** and **4 to 8 keywords** to describe your research paper and facilitate identifying research domain
  - III. A short bio-note of the contributor(s) indicating name, institutional affiliation, brief career history, postal address, mobile number and e-mail, should be provided on a separate page along with the title of the paper in the format given on college website. <http://www.semcom.ac.in/smtr/>
- Each contributor will get a complimentary copy of the issue (free of charge)
- There is NO PUBLICATION FEE or charge. **However authors are required to take MINIMUM ONE YEAR subscription / membership against which they shall get TWO issues of SMTR.**

### Editing Requirements

- Paper size: A4, Font & size: Times New Roman 12, Spacing: double space, Margin of 1 inch on all four sides, justified Alignment.
- The length of papers should not be more than 10 (1.5 space) typed pages, including tables, diagrams and appendices
- Title of the paper: bold, title case (Capitalize each word), centered.

### Review Procedure

- All the papers submitted to the ‘SEMCOM Management & Technology Review’ shall be reviewed by blind peer-review process. The editor has the final authority for the acceptance or rejection of any article. SEMCOM Management and this journal reserve the right to republish the paper in any form, at any time in the future.
- Rejected papers won’t be sent back to the contributor.

### Guidelines for Reference:

Only cited works should be included in reference list. Please follow [APA](#) style of citations. Papers not submitted in the standard format, as suggested above will not be considered for publication. The reference list should be alphabetized and not numbered. Please refer: [www.apastyle.org](http://www.apastyle.org).

\* Titles of articles from journals and books: “quoted”.

**Mode of submission & Deadlines:** The manuscript shall be accepted in only **soft copy** sent to: [smtr@semcom.ac.in](mailto:smtr@semcom.ac.in)  
The journal will be published bi-annually. For October edition, papers must be submitted before August 31. For March edition, papers must be submitted before January 31.

For more details visit: <http://www.semcom.ac.in/smtr/>