

RESEARCH REVIEW

The Academic Research Issue

Open Access, Peer-Reviewed & Refereed Journal
(An International Multidisciplinary Journal)

Special Issue
Volume 2, Issue 149, March 2025

Editor in Chief

Dr. D. M. Domadiya

Co-Editors

Dr. Alpa A. Thaker

Dr. Jignesh B. Togadiya

Dr. Sandip Brahmbhatt

For

ONE DAY NATIONAL CONFERENCE

On

**RESEARCH AND PRACTICES IN COMMERCE, ACCOUNTANCY,
MANAGEMENT, HUMANITIES AND IT FOR SUSTAINABLE DEVELOPMENT**

Jointly Organized

by

CITY C. U. SHAH COMMERCE COLLEGE

&

GUJARAT UNIVERSITY AREA ACCOUNTANCY TEACHERS' ASSOCIATION

AHMEDABAD - GUJARAT (INDIA)

(REG. NO.- F/636, DATED-29/10/1977)

Theme

Trends and Challenges in Business Accounting Frameworks

Reg.No.E/1260/2-7-2010

ISSN: 2321-4708

ONE DAY NATIONAL CONFERENCE

(OFFLINE MODE)

on

Research and Practices in Commerce, Accountancy, Management,
Humanities and IT for Sustainable Development

Jointly Organized

by

City C. U. Shah Commerce College, Ahmedabad

&

Gujarat University Area Accountancy Teachers' Association, Ahmedabad
(Reg. No.- F/636, Dated-29/10/1977)



CHIEF PATRON

DR. SUDHIR NANAVATI
Executive Vice-President

Gujarat Law Society, Ahmedabad

PATRONS

DR. CHANDNI KAPADIYA
Executive Director

GLS University, Ahmedabad

SHRI SHASHANK SHAH
Registrar

Gujarat Law Society, Ahmedabad

DR. DHARMESH SHAH
Provost

GLS University, Ahmedabad

CONFERENCE DIRECTOR

DR. PRASHANT JARIWALA

Administrative In-charge, City C. U. Shah College, Ahmedabad and
Vice President, Gujarat University Area Accountancy Teachers' Association, Ahmedabad

CONFERENCE CONVENORS

DR. PULIN BHATT DR. ALPA A. THAKER DR. MAHENDRA MAISURIA

CO-CONVENORS

DR. BINA SHUKLA DR. KALPESH GELDA DR. AJIT PARMAR DR. JIGNESH TOGADIYA

ORGANIZING COMMITTEE

PROF. MAHESH VASAVA

DR. KSHITI BHATT

DR. SANDIP BRAHMBHATT

DR. GARGI PATEL

DR. DIPA TANK

DR. MANISH PATEL

DR. NILAY PANCHAL



RESEARCH REVIEW

The Academic Research Issue

Open Access, Peer Reviewed & Refereed Journal
(An International Multidisciplinary Journal)

www.researchreviewonline.com



**One Day National Conference
(Offline Mode)**

On

**Research and Practices in Commerce, Accountancy,
Management, Humanities and IT for
Sustainable Development**

Jointly Organized by

City C.U. Shah Commerce College

&

**Gujarat University Area Accountancy Teachers' Association
Ahmedabad**

1st March 2025, Saturday

Venue:

K.R. Sant Hall

City Campus, Lal Darwaja, Ahmedabad



RESEARCH REVIEW

The Academic Research Issue

Volume: 2 Issue: 149 March, 2025

Special Issue

:: EDITORIALS BOARD ::

:: FOUNDER EDITOR ::

Dr. JIGNESH TAPARIYA

:: CHIEF EDITOR ::

Dr. D. M. DOMADIYA

:: EDITORS OF THE ISSUE ::

Dr. ALPA A. THAKER Dr. JIGNESH B. TOGADIYA Dr. SANDIP BRAHMBHATT

:: ADVISORY COMMITTEE ::

Dr. DAKSHA P. CHAUHAN, *Professor & Head*, Department of Commerce, Saurashtra University, Rajkot.

Dr. H.C. SARDAR, *Former Professor*, S.D. School of Commerce, Gujarat University, Ahmedabad.

Dr. S. K. TRIVEDI, *Former Principal*, City C.U. Shah Commerce College Ahmedabad.

Dr. SHAILESH PARMAR, *Professor*, Department of Commerce, Saurashtra University, Rajkot.

Dr. P. S. HIRANI, *Professor & Head*, KSKV Kachchh University, Bhuj.

Dr. SANJAY BHAYANI, *Professor and Head*, Department of Business Management, Saurashtra University, Rajkot.

Dr. YAGNESH DALWADI, *Professor & Head*, Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar.

Dr. KAMINI SHAH, *Professor and Dean*, Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar.

Dr. BHAVSINH DODIA, *Professor*, Department of Commerce and Management, BKMU, Junagadh.

Dr. JAYENDRASINH JADAV, *Associate Professor*, Department of Business Studies, Sardar Patel University, Vallabh Vidyanagar.

Dr. J. K. Patel, *Principal*, Shri V.R. Patel College of Commerce, Mehsana.

Dr. C. M. Thakkar, *Principal*, Shri Trikam Chatwani Arts and J.V. Gokal Trust Commerce College, Radhanpur.

Dr. R. O. Patel, *Associate Professor*, Shri Sahajanand Vanijya Mahavidyalaya, Ahmedabad.

:: COMMITTEE MEMBERS OF GUAATA ::

Prof. P. C. RAVAL, *Associate Professor*, H. A. College of Commerce and *President*, GUAATA, Ahmedabad.

Dr. D. R. RASTE, *Associate Professor*, Shri Sahajanand Vanijya Mahavidyalaya and *Vice-President*, Gujarat University Area Accountancy Teachers' Association, Ahmedabad.

Dr. PRASHANT T. JARIWALA, *Administrative I/c*, City C.U. Shah Commerce College, and *Vice-President*, GUAATA, Ahmedabad.

Dr. SHANKAR SODHA, *Professor*, S.D. School of Commerce, Gujarat University and *Secretary*, GUAATA, Ahmedabad.

Dr. NISHA BHAVSAR, *Associate Professor*, H. L. College of Commerce and *Joint Secretary*, GUAATA, Ahmedabad.

Dr. BHARAT ACHARYA, *Principal In-charge*, Shri Sahajanand Vanijya Mahavidyalaya and *Joint Secretary*, GUAATA, Ahmedabad.

Dr. CHETANA MARVADI, *Professor*, S.D. School of Commerce, Gujarat University and *Treasurer*, GUAATA, Ahmedabad.

About Journal

This Refereed & Peer-Reviewed International Research Journal - Research Review - The Academic Research Issue is owned by Shree Vishat Krupa Education and Charitable Trust, Jaliyala, Ta: Limbdi, Dist: Surendranagar, Gujarat, India. Dr. D. M. Domadiya, Associate Professor & Head, Department of Hindi, M.B. Arts & Commerce College, Gondal, District: Rajkot, Gujarat, India is the chief editor of the journal which has been given required sanction and approval by the *National Institute of Science Communication and Information Recourses (NISCAIR), New Delhi*, on 7th June 2013, with their letter vide NSL/ISSN/INF/2013./1279 ISSN: 2321-4708 on the name of Research Review – the Academic Research Issue.

This is an International Refereed Monthly research journal which regularly appears in the every month. This multidisciplinary journal publishes research article on vast spectrum of areas including all the major subjects of Humanities, Commerce and Science.

The Research scholars are requested to send only the soft copy of their research papers specified as per the guidelines and specifications of research methodologies in their respective disciplines. There is a panel of subject experts which ensures the quality measures of the journal. Only genuinely researched and original articles / research papers would be considered for publication. The publishers reserve all the rights not to consider the paper for publication if they deem it unworthy of publication.

STATEMENT ABOUT THE OWNERSHIP OF THE JOURNAL

Place of Publication : Gondal, Dist.: Rajkot, Gujarat - INDIA
Periodicity : Monthly
Name of the Owner : Shree Vihot Krupa Education and Charitable Trust, Jaliyala,
Taluka : Limbdi, Dist: Surendranagar
Name of the Publishers : Shree Vihot Krupa Education and Charitable Trust, Jaliyala,
Taluka : Limbdi, Dist: Surendranagar
Type & Printing by : Aasutosh Computer, 21, First Floor, J. K. Complex, Opp. Central
Bank, Near Vishal Mega Mall, Jetpur Distract : Rajkot (Gujarat)
Nationality : Indian
Address : Shree Vihot Krupa Education and Charitable Trust, Jaliyala,
Taluka : Limbdi, Dist: Surendranagar
Editor's Name : Dr. D. M. Domadiya
Address : M. B. Arts and Commerce College, Gondal
Publish Date : Every Month's 1st Date
: I, Dr. D. M. Domadiya, declare that the particulars given above are
true to the best of my knowledge and belief. (Sd.) Dr. D. M.
Domadiya



About the Conference

The conference on “Research Practices in Commerce, Management, Humanities and Information Technology for Sustainable Development” basically focuses on addressing global sustainable challenges by integrating insights from these disciplines. It emphasizes the importance of ethical business practices, corporate social responsibilities and efficient resource management to ensure financial stability, while also protecting the environment. Humanities contribute by promoting critical thinking, cultural awareness and moral responsibility, providing a foundation for sustainable effort. Information technology drives innovation through tools for resource management, data -driven decisions and green technologies. The present conference invites scholars, practitioners and policy makers to share their strategies and insights aiming to achieve a balance between economic growth, environmental conservation and social equity.

About GLS

Founded in 1927, Gujarat Law Society (GLS) is one of the most prominent and long-standing educational institutions in Gujarat. It was established by distinguished figures including Shri Sardar Vallabhbhai Patel, Shri Ganesh Mavlankar, the nation's first Speaker, and Shri I.M. Nanavati, with a commitment to educational excellence. GLS has been a trailblazer from the start, offering a diverse range of programs in fields such as Business Management, Computer Science, Engineering, and Applications, Commerce, Business Administration, Education, Law, and Humanities. The courses provided by GLS are highly regarded, both among students and within the corporate sector.

About the College

City Commerce College affiliated to Gujarat University, was founded in 1966. The college was given its name, City C.U. Shah Commerce College on the name of the donar Shri Chimanlal Ujamshibhai Shah in 1970. Since 2010, the College is known as CITY C.U.SHAH COMMERCE COLLEGE. We provide quality education to the students of middle class who choose the best education. The college with morning classes proves to be a real boon for the working class students.

About Gujarat University Area Accountancy Teachers’ Association

GUAATA is registered association and is formed by the experts of the accountancy field 45 years back. The objective of the Association is exclusively confined to academic activities in the field of Taxation and Accountancy. This association has membership of more than 1000 members. The territory of members is spread out from Kutch district to Dahod district and from Ahmedabad district to Banaskantha district. The role of association is to form informal syllabus for university in the subjects of Taxation and Accountancy, to organise workshops for training of new syllabus formed, to organise state level, National level and International level Seminars and Conferences. In past quality based good numbers of seminars, Conferences and Workshops are organised by the association. This association has its own journal “Communique” where research papers of young and senior professors are published and best papers are awarded prize.

Themes & Sub-themes

Theme 1: Trends and Challenges in Business Accounting Frameworks

- Corporate Governance and Sustainability
- Digital Transformation in Accounting
- Cyber Security in Financial Reporting
- Risk Management and Reporting
- Reforms in Direct and Indirect Taxation
- Sustainable Supply Chain Accounting
- Cloud Accounting
- Environmental Accounting and Reporting
- Carbon Accounting and Reporting
- Forensic Accounting and Fraud Detection
- Sustainable Financial Instruments

Theme 2: Innovative Approaches to Sustainable Economic Administration

- Public-Private Partnerships for Sustainability
- Digital Transformation for Sustainable Economic Practice
- Climate Change Adaptation in Economic Policy
- Green Finance and Investment Strategies
- Sustainable Debt Financing and Green Bonds
- Development and Challenges of the GIG economy
- Sustainable Public Finance and Fiscal Policy

Theme 3: Innovations and Challenges in Business and Management for Sustainable Development

- Corporate Social Responsibility (CSR)
- Resilience in Business Management
- Sustainable Supply Chain Management
- Green Innovation and Technology
- Employee Engagement in Sustainability
- Green Human Resource Management
- Sustainable Business Models and Value Creation
- Hospitality Management Practices
- Sustainable Leadership
- Resilience in Business Management
- MSME and Start-up Environment
- Challenges for Businesses in Implementing Sustainable Supply Chains

Theme 4: Trends and Challenges in Humanities for Sustainable Development

- Cultural Heritage and Sustainability
- Environmental Ethics and Philosophy
- Language, Communication, and Sustainability

- Art, Aesthetics, and Ecological Consciousness
- Education for Sustainable Development
- Human Rights and Environmental Justice
- Narratives of Climate Change
- Urban Humanities and Sustainable Cities
- Globalization, Migration, and Sustainability
- Peace, Conflict Resolution, and Sustainable Development
- Digital Humanities and Environmental Change
- Religion, Spirituality, and Sustainability
- Public Policy, Governance, and Humanities

Theme 5: IT Practices and Challenges for Sustainable Development

- Green Fintech
- Cyber Security for Sustainable Innovations
- E-Governance for Sustainable Development
- Artificial Intelligence for Sustainable Decision-Making
- Tech-Enabled Circular Economy
- Block chain for Supply Chain Transparency
- Cloud Computing for Sustainability
- Internet for things (IOT) for smart management
- Big Data Analytics for Sustainable Business Practices
- Cyber Security for Data Protection and Privacy
- Challenges in Promoting Digital education and training for Sustainable IT Practices

Theme 6: NEP 2020 and its relevance, challenges and remedies for Commerce Education

- A comparative study of different state universities on curriculum of commerce faculty
- A comparative study of different private universities on curriculum of commerce faculty
- A comparative study of state and private universities on curriculum of commerce faculty
- Role of Gujarat Government and its agencies on curriculum of commerce faculty
- Futuristic approach of research work in commerce faculty
- A critical analysis on UG and PG structure of commerce faculty
- An evaluative study on implementation of NEP in commerce faculty by universities
- Role of universities for successful implementation of NEP in commerce faculty
- NEP and Skill development in Commerce education: Opportunities, challenges and remedies
- NEP and Multidisciplinary Education in Commerce: Opportunities, challenges and remedies

MESSAGE

It is a matter of great pleasure and pride for me to learn that City C. U. Shah Commerce College, one of our premiere colleges in the city area, is organizing a National Conference on “Research & Practices in Commerce, Management, Humanities, and Information Technology for Sustainable Development” on the 01st of March, 2025. Just as the world has been gifted with nine gems from Samudramanathan, I wish in the same way new directions and vistas of knowledge are opened from this national conference.

I wish all the very best to Dr. Prashant Jariwala, Administrative-in-Charge, and the entire team for the success of the conference.

Gujarat Law society has always encouraged and supported such academic endeavours in the past and will continue to support in future also.

Blessings,



Dr. Sudhir Nanavati
Executive Vice President
Gujarat Law Society, Ahmedabad

Special Issue
Volume 2, Issue 149, March 2025

INDEX

Sr. No.	Research Paper Title	Author	Pg. No.
1	A Comparative Study of Environmental Disclosure Pattern of Indian Pharmaceutical Company	Neha Kaku	1
2	ESG and Financial Performance: A Study of Selected Energy and Power Sector Indian Companies	Shukla Ayushi A., Dr. Prashant Jariwala	8
3	Transparency in Transition: Financial Disclosure Practices and their impact on Indian Corporate Governance	Rahul N. Parmar	15
4	Evaluating the Effectiveness of the Education System in Producing Competent Auditors	CA Devarsh Gandhi	27
5	A Study on Perception of Cloud Accounting among Accounting Professionals of Gujarat Region	Aditi Birla	33
6	The role of Cloud Computing in Digital Accounting Transformation	Ms. Neelam Saroj	41
7	The Rise of Crowd Funding: A New Financial Pathway in India's Economic Landscape	Mr. Kavita Anjaria	46
8	RBI Regulatory Intervention and Market Reaction: An Event Study of IIFL Finance Ltd.	Ridham A. Prajapati, Dr. Shital Rathod	53
9	Financial Shenanigans	Dr. Shailaja Parmar	60
10	Cloud Accounting: A New Business Structure in A Competitive Market	Prof. Parashar Dave	66
11	A Comparative Study on Direct and Indirect Tax Reforms in India	Prof. Milin Danak	70
12	Enhancing Shareholders' Value Creation through Dupont Analysis: A Comprehensive approach to Financial Performance of Selected it Companies of India	Memon Salina M.	74
13	Profitability Analysis of Selected Petroleum Refineries in India	Chirag V. Ram, Dr. Jignesh J. Patel	81
14	Perception of Cloud Accounting among Chartered Accountants of Ahmedabad: A Regional Analysis	Thakkar Juli G., Dr. Dashrathkumar K. Patel	91
15	A Closer Look on Share Price Fluctuations in Indian Stock Market due to Election Results 2024: An Event Study Approach	Ms. Payal Teli, Dr. Hemal Pandya	100
16	Cloud Accounting and its Effect on Competitive Advantages: A Theoretical Perspective	Nidhi R. Pandya	109
17	A Review of Literature on The Influence of Digitalization on The Financial Performance of Urban Cooperative Banks	Sandipbhai H. Zala	114
18	An Analysis of the impact of Goods and Services Tax (GST) on various aspects of the Restaurant and Hotel Industry in Gujarat	Aditiben J. Rathod, Dr. Girishchandra M. Purani	120
19	Cash Management: A Strategic tool for Evaluating Financial Performance	Nikhilkumar Rohit, Dr. Niki Sharma	126
20	Navigating the Turbulent Waters: An In-Depth Analysis of India's Insolvency Regime	Riddhi Suthar, Dr. Urvi Gajjar	132
21	The impact of Artificial Intelligence on Accounting Profession: A Review Work	Dr. Ruchi S. Joshi	139
22	Assessing the Effectiveness of Risk Management Practices in Small and Home-Based Enterprises: Challenges and Solutions	Machhi Pritikshaben B., Dr. Rohit Barot	147
23	An Evaluation of the Financial Efficiency of Selected Banks in India with Reference to Camel Model	Mr. Jignesh B. Shah	151
24	Forensic Accounting and Fraud Detection: An Overview in the Digital Age	Dr. Nirali K. Shah, Dr. Gargi Patel	165
25	Study of Direct Tax Trends in India 2014-15 to 2024-25	Chavda Ashokkumar G.	174
26	Reforms in Direct and Indirect Taxation	Solanki Jagdishbhai B.	179
27	Digital Transformation in Accounting: Data Analytics and Technological Advancement	Dr. Mukesh Bavaliya	188



A COMPARATIVE STUDY OF ENVIRONMENTAL DISCLOSURE PATTERN OF INDIAN PHARMACEUTICAL COMPANY

By

Neha Kaku

Assistant Professor

LJ University, Ahmedabad, Gujarat

Abstract

There are various decision-making criteria conducted throughout the business by different people engaged directly or indirectly in the business. One of the most important decisions of running a successful and ethical business leads to the question HOW? A business can be just normal and limited whereas it can be sustainable and beneficial to the environment from where it has received majority of the inputs for producing the product or rendering service. So, if a company has sustainable business (needful to grow and to grab growing opportunities) it considers the environmental disclosures (Voluntary Disclosure) in its annual report or website. According to Global reporting Initiative, nineteen items are considered for Environmental disclosure Index. Here, an exploratory study is done between top two (as per market capitalisation) Indian Pharmaceutical companies. This is a trend study conducted with the help of secondary data, taken from the annual report published by the company. This comparative study is led by the Environmental Disclosure Indicators which are important to have a Sustainable Business.

Keywords: Environmental Disclosure Index, Environmental Accounting, Environmental Reporting, Annual Reports, Content Analysis

Introduction

“We are the first generation to feel the effect of climate change and the last generation who can do something about it.”-Barack Obama, Former US President.

Every business has its own objective; each and every objective is fulfilled with the help of proper utilisation of resources. These resources are limited, thus there must be a sustainable plan to run the business (Environmentally Friendly Business or Sustainable Business). Even in Pharmaceutical Industry the products have a major input from natural resources which must be preserved and conserved so that it does not become a limiting factor for future innovations in important findings in the sector of Pharma. Environment is affected by economic, social and political issues. Business has great responsibility of not just maintaining interest of investors but to work in interest of environment. Profitability is not just recovering cost and earning percentage of profit on it, but profitability is earning profit with maintaining sustainability- giving back to nature for the resources that were used for the production or providing services. Hence, it is important to maintain a balance between wealth maximation and sustainability. For this many companies voluntarily conduct practice of Environment Disclosure under the head of Business Responsibility and Sustainability Report in Annual Reports even some companies also disclose this kind of information on their website, this discloses business entities responsibility towards air, water and waste management, carbon emission, etc. this disclosure leads an ethical and increased goodwill/reputation in the eyes of stakeholders.

Review of Literature

Environmental disclosure has evolved significantly since the 1970s when companies began including brief narrative reports on environmental performance in their annual reports (Harte & Owen, 1991; Wiseman, 1982). However, these disclosures were often incomplete and lacked standardization. Over time, increased stakeholder pressure and regulatory developments have led to more structured environmental reporting practices (Sahay, 2004; Singh & Joshi, 2009).



The role of financial performance in CED remains debated. Deegan and Gordon (1996) suggested that companies with higher financial performance tend to disclose more environmental information as a strategy to maintain legitimacy and corporate reputation. However, Wu et al. (2010) found that environmental disclosures negatively impact firm performance, indicating potential costs associated with sustainability reporting. Similarly, Alikhani and Maranjory (2013) found no significant relationship between CED and profitability in Iranian firms, raising questions about the financial benefits of such disclosures.

In India, environmental reporting remains largely voluntary, with some industries demonstrating higher disclosure levels. Sen et al. (2011) identified that firms in pollution-intensive industries, such as distilleries, often follow minimal disclosure practices despite regulatory pressures. Siddique et al. (2011) emphasized the need for standardized reporting frameworks to improve the quality of environmental disclosures, particularly in developing economies.

Objectives

The study has following specific objectives;

1. To identify and evaluate the environmental disclosures reported in Indian Pharmaceutical companies.
2. To analyse the Environmental Disclosure Indicators as per GRI (Global Reporting Initiative).
3. To conduct comparative analysis of disclosure scores obtained by the companies in pharmaceutical industry.

The purpose of this study is a comparative analysis of Indian Pharmaceutical Company for their environmental reporting practice. This study analyse the following indicators as per GRI of environmental disclosure; Compliance with environmental standards, EMS ISO 14001, Expenditure / investment on pollution control equipment, Information relating to present / potential litigation, provision, contingent liability, fine, Environmental policy, Environmental Initiatives, Environmental Audits, Awards for Environmental Protection, Conservation of Energy, Conservation of natural resources, Conservation of Bio diversity, Conservation of water, Reducing Carbon emission, Reduce consumption of materials, Waste management, Recycling waste, Noise Emission, Use of renewable energy, Supply chain management Supply chain management and Green products.

Methodology

The nature of the study is Exploratory. The data is secondary in nature which has been sourced from Annual Report considering its inclusion on Company's website. The data has been considered for last three Financial Years- 2021-22, 2022-23, 2023-24. The Environmental Disclosure index is developed as per the indicators of Global Reporting Initiative (GRI). This has been developed by having deep literature survey in accounting and related fields.

The Environmental Disclosure Index as per indicators of Global Reporting Initiative (GRI) has nineteen items included, which are as follows;

Table No. 1: Environmental Disclosure Indicators as per Global Reporting Initiative (GRI)

Items	Environmental Disclosure Indicators as per Global Reporting Initiative (GRI)
1	Compliance with environmental standards, EMS ISO 14001
2	Expenditure / investment on pollution control equipment
3	Information relating to present / potential litigation, provision, contingent liability, fine
4	Environmental policy / goal / sustainability roadmap
5	Training education for environmental protection / Environmental initiatives
6	Environmental audits / External assurance
7	Awards for environmental protection



8	Conservation of energy
9	Conservation of natural resources / remediation, clean-up, restoration
10	Conservation of Bio diversity / tree plantation / sapling
11	Conservation of water / rainwater harvesting / Water management
12	Reducing Carbon emission / Air emission / CO2 / Greenhouse gas
13	Reduce consumption of materials
14	Waste management and disposal information
15	Noise emission information
16	Use of renewable energy / bio fuel / solar / wind mill
17	Recycling waste
18	Supply chain management/green sourcing/green supply chain
19	Product development and innovation/Green products.

This study evaluates the items which are not Quantitative or qualitative in nature nor it is based on few disclosures or deep informative disclosure but each item is assigned as 1 or 0 as per the disclosure or non- disclosure of item in the Annual Report under the head of Business Responsibility and Sustainability Reporting. The score is then summed up which can maximum be at nineteen, then an average is found year wise and company wise.

Sample Selection and Time:

For the study, top two companies are selected which is based on higher market capitalisation in regards with others. Here the study of annual Report for both the companies have been conducted. This study includes a comparative analysis of two Indian Pharmaceutical companies listed in National Stock Exchange (NSE);

1. Sun Pharmaceutical Industries Limited
2. Divi's laboratories Limited

The highest market capitalization in National stock Exchange (NSE) for Indian Pharmaceutical Industry is of Sun Pharmaceutical industry limited and the second highest market capitalization in National stock Exchange (NSE) for Indian Pharmaceutical Industry is of Divi's laboratories Limited. This study is based for the time period of three financial years that is 2021-22, 2022-23 and 2023-24.

Results and Discussions:

Environment Disclosure is voluntary in nature, though many companies have come up with the presentation of such reports of Business Responsibility and Sustainability Reporting. The reason lies in its benefits.

The focus on sustainable business is considerably increasing as the years are coming ahead, due to the declining nature of natural resources. There are many industries who have considered the Environmental Disclosure in the annual report from which this study focuses on Indian Pharmaceutical Companies (Pharmaceutical Industry).

Market Cap.	Name of Company (Listed in National stock Exchange)	Total
1	Sum Pharmaceutical Industries Limited	47

Table No. 2 Total score of Sun Pharmaceutical Industry Limited



This company has scored a total of 47 out of 57 based on the nineteen items mentioned in Table No.1 of Environmental Disclosure Indicators as per Global reporting Initiative (GRI) in three consecutive financial years that is 2021-22 (1), 2022-23 (2), 2023-24 (3). An overall fair picture of environmental disclosure is seen for these three years.

Market Cap.	Name of Company (Listed in National stock Exchange)	Total
2	Divis Laboratories Limited	51

Table No. 3 Total score of Divi's laboratories Limited

This company scored a total of 51 out of 57 based on the nineteen items mentioned in Table No.1 of Environmental Disclosure Indicators as per Global reporting Initiative (GRI) in three consecutive financial years 2021-22 (1), 2022-23 (2), 2023-24 (3). for these three financial years. An overall a higher and good / fair picture of environmental disclosure is seen for these three years.

A. Analysis of Sun Pharmaceutical Industry Limited:

The following chart shows the year wise environment disclosure for Sun Pharmaceutical industry limited.

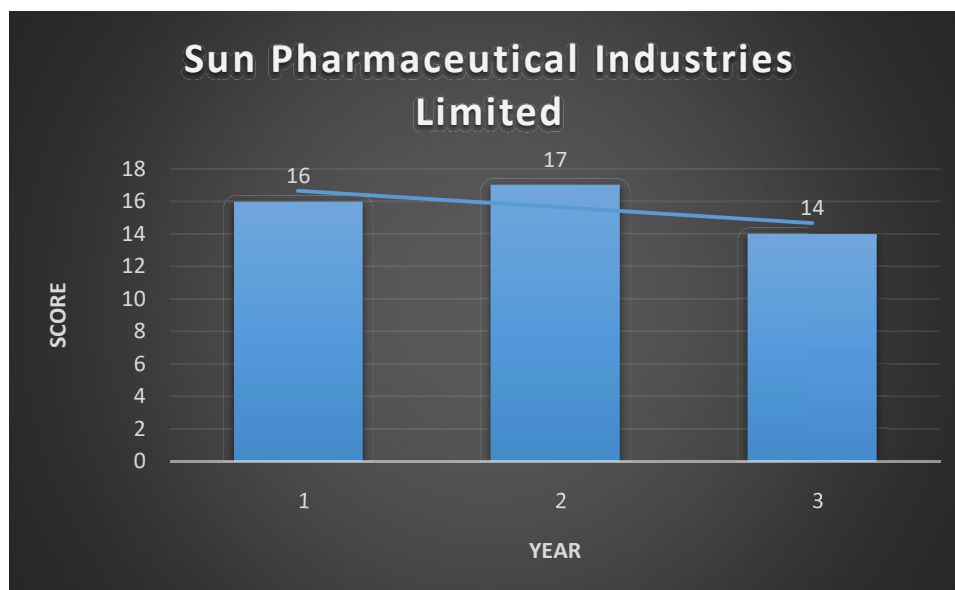


Chart No.1: Sun Pharmaceutical Industries Limited

Here, a clear picture of disclosure can be seen. This chart showcases the year wise data that is 16, 17 and 14 environmental disclosure indicators in three consecutive financial years 2021-22 (1), 2022-23 (2) and 2023-24 (3).

In the first financial year that is 2021-22 out of the 19 Global reporting Initiative (GRI) indicators 16 has been disclosed. The indicators which are not disclosed are Information relating to present / potential litigation, provision, contingent liability, fine, Awards for environmental protection, Noise emission information. It is a positive sign that the company is not having any contingent liability or fine allocated in regards of sustainability in this year. The company must look forward for noise emission process.



In the second financial year that is 2022-23 out of 19 Global reporting Initiative (GRI) indicators 17 has been disclosed. The indicators which are not disclosed are Awards for environmental protection, Noise emission information. It is beneficial end for the company to see an increase in input of Environmental Disclosure but here the company have reported the information relating to present / potential litigation, provision, contingent liability, fine which is not good enough for the sustainable business outcome. Thus, a proper care must be taken to reduce environmental damage or resource wastage and to concentrate on business sustainability.

In the third financial year that is 2023-24 out of the 19 Global reporting Initiative (GRI) indicators 14 has been disclosed. The indicators which are not disclosed are Information relating to present / potential litigation, provision, contingent liability, fine. Awards for environmental protection, Noise emission information, Supply chain management / green sourcing / green supply chain, Product development and innovation / Green products. Again, it is a positive sign that the company is not having any contingent liability or fine allocated in regards of sustainability in this year which is a seen effort of the company to get the image better for sustainable business. Again, a constant indicator is noise emission which must be taken into consideration and the sustainability is negatively affected when the company does not focus on Product development and innovation / Green products and Supply chain management / green sourcing / green supply chain.

The trend of environmental disclosure indicators is seen to be decreasing seeing from the view point of sustainability as the company gets involved in contingent liability in second year and in the third year it has not taken into account the innovative technique of product development and green sourcing of the material from the suppliers by not taking into consideration the supply chain management.

B. Analysis of Divi’s Laboratories Limited:

The following chart shows the year wise environment disclosure for Divi’s Laboratories Limited;

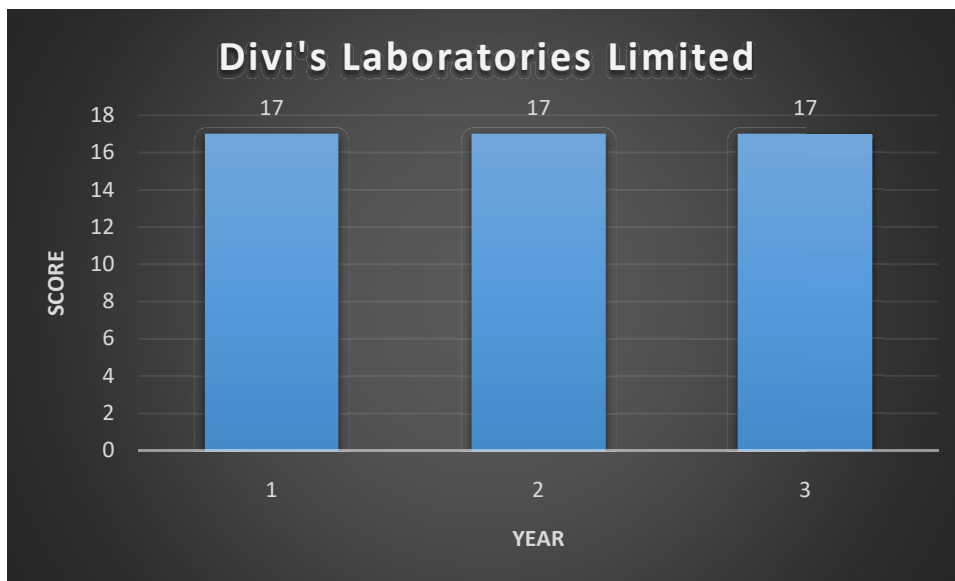


Chart No. 2: Divi’s Laboratories Limited

Here, a clear and fair picture of disclosure can be seen. This chart showcases the year wise data that is 17 environmental disclosure indicators in all the three consecutive financial years 2021-22, 2022-23 and 2023-24.

The Company’s constant effort is seen in maintaining the environmental Disclosure indicators in all the three financial years. Here, for 2021-22, 2022-23 and 2023-24 financial years a score of 17 out of



the 19 Global reporting Initiative (GRI) environmental disclosure indicators has been disclosed. The indicators which are not disclosed for all the three years are constant and they are Information relating to present / potential litigation, provision, contingent liability, fine and Noise emission information. On one end it is good to look forward to a maintained sustainable effort for the business and it is also a quality showcasing factor when the contingent liability is not disclosed for the company in any of the year and for the Noise emission information the company must inculcate an effort to disclose the same.

Analysing and evaluating the comparison chart of both the companies, the following information makes it more clear by showcasing the overall picture of three financial years with the average year wise for that company and year wise for different company

Market Cap.	Name of Company (Listed in National stock Exchange)	Financial Year			Average
		2021-22	2022-23	2023-24	
1	Sun Pharmaceutical Industries Limited	16	17	14	15.6667
2	Divi's Laboratories Limited	17	17	17	17
	Average	16.5	17	15.5	16.3333

Comparing the data of Environmental Disclosure Indicators for Sun Pharmaceutical Industries Limited and Divi's Laboratories Limited a comparative benefit is seen in Divi's Laboratories Limited as it has an average score of 17 which is higher as compared to 15.6667 which is the score of Sun Pharmaceutical Industries Limited. Hence Divi's Laboratories Limited showcase a better picture of Sustainable business in its annual report.

Findings and Conclusion

Though being the Environmental Disclosure is not compulsion by law, still many companies have considered the environmental disclosure in their annual report and many of the companies have also disclosed these details on their website to gain and maintain impression / image or goodwill for shareholders, government and potential investors. This study has resulted to the comparative environmental disclosure of top two Indian Pharmaceutical which is listed in the National Stock Exchange (NSE). In this study, the analysis and evaluation of companies on their take on sustainability for recent three financial years that is 2021-22, 2022-23 and 2023-24 disclosed in their annual report is considered as exploratory study. It is righteous for the company to disclose the factors or indicators considered by them to lead a sustainable business.

Limitations

This study is based on pharmaceutical industry only, which can be seen for more industry inclusion in the future study. Here, the comparative study is based on two companies again which can be enlarged to a greater number of companies in pharmaceutical industry or a mixture of industries. The data here considered is for recent three financial years, which can be extended to five to ten years depending on the availability of data by the company.

References

- Porchelvi, A. (2019). Environmental reporting practices: An analysis of Indian companies. *EPR International Journal of Economic and Business Review*, 7(10), 83-93.
- Alikhani, R., & Maranjory, M. (2013). An investigation on the relationship between social and environmental information disclosure level and firms' performance in Iran. *International Research Journal of Applied and Basic Sciences*, 5(1), 125-128.



- Sahay, A. (2004). Environmental reporting by Indian corporations. *Corporate Social Responsibility and Environmental Management*, 11(1), 12-22.
- Deegan, C., & Gordon, B. (1996). A study of the environmental disclosure practices of Australian corporations. *Accounting and Business Research*, 26(3), 187-199.
- Wu, J., Liu, L., & Sulkowski, A. (2010). Environmental disclosure, firm performance, and firm characteristics: An analysis of S&P 100 firms. *Journal of Academy of Business and Economics*, 10(4), 73-83.
- Siddique, S., Sciulli, N., & Faux, J. (2011). Towards a theoretical model for analysing the quality of corporate environmental disclosure: Emphasising what and why. *International Review of Business Research Papers*, 7(3), 194-206.
- Harte, G., & Owen, D. (1991). Environmental disclosure in the annual reports of British companies: A research note. *Accounting, Auditing & Accountability Journal*, 4(3), 51-61.
- Wiseman, J. (1982). An evaluation of environmental disclosures made in corporate annual reports. *Accounting, Organizations and Society*, 7(1), 53-63.
- Singh, G., & Joshi, M. (2009). Environment management and disclosure practices of Indian companies. *International Journal of Business Research*, 9(2), 116-128.
- Sen, M., Mukherjee, K., Mathur, L., & Pattanayak, J. K. (2011). Corporate environmental disclosure practices in India. *Journal of Applied Accounting Research*, 12(2), 139-156.

**ESG AND FINANCIAL PERFORMANCE: A STUDY OF SELECTED ENERGY AND POWER
SECTOR INDIAN COMPANIES**

By

Shukla Ayushi ArvindKumar

Research Scholar, Department of School of Commerce, Gujarat University, Ahmedabad-380009

&

Dr. Prashant Jariwala

Associate Professor, City C.U.Shah Commerce College, Laldarwaja, Ahmedabad

Abstract

This research seeks to explore the relationship of Environmental, Social and Governance (ESG) scores with the financial performance of selected energy and power sector Indian companies. For this purpose in this study data of top 10 BSE listed energy and power sector Indian companies for the period 2022-23 and 2023-24 and adopts a Pearson correlation coefficient and Multiple linear regression to assess the relationship between Environment, Social, Governance and Combines ESG Scores as a (Independent Variables) whereas ROA and ROE as (Dependent Variables). The results of the study revealed that ROA is strongly and positively co-related with the Environment Score whereas the ROE showing moderate positive but not significant relation with Environment score whereas the relationship with other variables like social and governance score and combined score is insignificant. However ROA found to have quite close relationship but not significant with (COMB.SCORE, GOVERNANCE, ENVIRONMENT, and SOCIAL SCORES) also ROE showing insignificant relationship with Independent variables. Further it is to be recommended to have more transparency and consistency in their ESG reporting to help the investors and other stakeholders to better evaluation of relationship between ESG factors and financial returns.

Keywords: ESG Scores, Financial performance, Correlation, Regression**Introduction**

ESG became one of the most driven factors that indicate opportunities and hazards and which affect a business's capacity to generate long-term value. This covers environmental concerns including resource shortage and climate change, waste management, carbon emission reduction, renewable energy promotion, and risk mitigation. It addresses social issues including data, product safety, and labour methods safety human rights, diversity, fair labour practices, and community involvement. Additionally, it deals with governance issues like tax transparency, executive compensation, and board diversity. ESG, an asset management company, assesses nations and businesses based on their level of sustainability by taking into account environmental, social, and governance aspects.

In the end, ESG refers to investments that seek to yield favourable returns and a lasting influence on people, the environment, and company performance. A company's leadership structure, decision-making procedures, and accountability systems are the main topics of governance factors. All stakeholders must comprehend ESG values because renewable energy is currently the energy sector's most pressing requirement.

Businesses in the renewable energy sector that exhibit outstanding ESG performance have a higher chance of drawing funding from funds that support ethical and sustainable enterprises as well as socially conscious investors. Businesses may foresee and reduce risks like societal opposition, environmental effects, and regulatory changes by including ESG considerations into their risk management plans. Strong governance procedures, social initiatives, and proactive environmental management can all lower the likelihood of social disputes and improve a company's social license to operate. Through waste reduction, energy conservation, and the promotion of a continuous improvement mindset, ESG practices can stimulate innovation and operational efficiency.



Through waste reduction, energy conservation, and the promotion of a continuous improvement mindset, ESG practices can stimulate innovation and operational efficiency. A significant emphasis on ESG can also spur product and service innovation, creating new market and source of income. In the quickly changing renewable energy sector, businesses that incorporate ESG principles into their fundamental strategy are generally better positioned for long-term resilience and competitiveness.

Literature Reviews

Dingding Liu (2022) conducted research study on “The Impact of ESG on Financial Performance of Listed Companies –An analysis based on corporate reputation perspective. In this study revealed that private level enterprises financial performance more significantly affected than the state owned enterprises also medium scale companies financial performances majorly affected compared to large scale and small size enterprises.

Tao Fu & Jianjung Li (2023) done research study on “An empirical analysis of the impact of ESG on the financial performance: the moderating role of digital transformation”. For this purpose A-share listed companies china selected as a sample and by using the regression analysis they found that ESG positively and significantly affect the financial performance also when we see the heterogeneity test shows that improving effects of ESG has a positive and significant impact over non-state owned enterprise but insignificant for state owned.

Deepali Kalia & Deepika Aggarwal (2022) done a research study on “Examining impact of ESG score on healthcare companies”. In order to examine the relationship and to see their impact correlation and multivariate regression analysis technique has been used which resulted that ESG positively affecting the performance of developed economies but it has insignificant impact in developing economies.

Eko Putri Setiani (2023) has done a research on “The impact of ESG Scores on Financial Performance: Moderating role of gender diversity. Using multiple regression analysis study resulted that gender diversity fosters a positive relationship between ESG Scores and corporate financial performance and it is to be suggested that investors also need to pay attention on non-financial factors in making their investment decision.

Amar Rao, Vishal Dagar, Kazi Sohag, Leila Dagher & Tauhidul Islam Tanin (2023) has done research on “ Good for the planet ,good for the wallet :The ESG impact on financial performance in India. In this study they examine the impact of ESG on financial performance of selected nifty 50 companies. Fixed-effects panel quantile regression shows negatively impact of environmental pillar score and the governance pillar score on the ROE across almost all quantiles with high statistical significance but the mild negative impact of social score over the ROE.

Karishma Anklesaria Dalal & Nimit Ashwinkumar Thaker (2019) found in their research that companies with a high ESG Scores are better financial performers also the result of their study clearly indicate that investors majorly prefer companies with a good social obligations, better carbon footprints and transparent governance policies and they suggested that regulatory should heavily focus on a environmental aspect, social aspect and governance aspect to make it part of mandatory disclosures as a improved sustainability reporting practices .

Fei Wang (2024) conducted a research over the A-share listed companies for a period 2018-2022 and the result of their study indicated the EGS Scores, Financial profitability and firm value are significantly positively correlated.

Priyanka Devi & Sapna (2024) done a research on 149 listed companies on BSE stock index for the year 2020 and 2021 and their study revealed that significant negative relation between ESG rating and the firm performance also negative relation found between ESG Scores and Firm performance and they added that organisation which follow ESG initiatives incurred additional cost which affect their profitability.

Vishal Patel and Kumar Aditya (2024) done a research on ESG impact on financial performance: A study of Metal Industry in India in which their study resulted that ESG Scores on two critical financial



performance indicators i.e. ROA and ROE. This study also noted that significant positive moderating effects of firm size on both ROA and ROE.

Sanjay Bhayani & Butul Ajmera (2023) in their study resulted that ROA has significant correlation with social whereas ROCE has a significant correlation with social and ROA. Also stock price shows significant correlation with ROA, ROCE and size. Whereas the ESG has insignificant relationship with ROA. ESG has significant correlation with Environment score, Social score, governance score and leverage. Size is the only variable affect ROCE and ESG Scores has a insignificant impact on enterprise value.

Research Gap

From the above review of literature researcher found that most of the research work have been done in various sector with reference to ESG and its impact over financial performance but very few research paper has been reviewed in the area of energy and power sector based Indian companies with reference to ESG scores and its impact over financial performance.

Objectives of the study

- To analyse the relationship of Environmental, Social and Governance factors with the financial performance of selected Indian Power & Energy Companies.
- To study the impact of Environmental, Social and Governance factors over the financial performance of selected Indian Power & Energy Companies.

Main hypothesis of the study

H₀₁: There is no significant relationship between ESG Score and ROA of selected Indian Power & Energy Companies.

H₀₂: There is no significant relationship between ESG Score and ROE of selected Indian Power & Energy Companies.

H₀₃: There is no significant impact of ESG Score on ROA of selected Indian Power & Energy Companies.

H₀₄: There is no significant impact of ESG Score on ROE of selected Indian Power & Energy Companies.

Note: The above main null hypothesis having a sub-hypothesis based on each category of scores.

Research Methodology

Correlation: Pearson correlation coefficient is used to check the relationship of ESG Scores with ROA and ROE.

Regression: Multiple Linear regression were used to check the impact of Combined ESG Score, Environment score, Social Score, Governance Score on the financial performance of energy and power based selected Indian companies.

Variables

Independent: Environment, Social and Governance Score and Combined ESG Scores of selected companies taken as an independent variables of the study.

Dependent: ROA and ROE have been chosen as a measures of financial performance are used as a dependent variable.

Sources of data: In this study the data of ESG Performances of energy and power generation companies extracted from the website of standard credit score rating agency and in order to the analysis data of top



10 energy and power based corporations of India selected as a sample listed on based on their market capitalisation .The sample Companies renewable source of energy, electricity generation companies and oil and natural gas by is a standard scores published by **CRISIL ESG Ratings & Analytics Limited**. Secondary Source of data have been used to achieve the objective of the present study. Data has been collected from the databases and reports of rating agencies, annual reports, financial statements, stock market, books, journals, and official financial websites.

Research Methodology: This study employs an exploratory research design to examine the impact of Environmental, Social, and Governance (ESG) scores on the performance of the metal industry in India. The statistical tools include Pearson correlation coefficient and multiple linear regression analysis, to provide a comprehensive understanding of the relationship between ESG scores and performance. Pearson’s Correlation analysis is used to check the relationship among ESG Score, Combined ESG Scores ROA (Return on Asset), and ROE (Return on Equity).Regression analysis is used to check the impact of ESG Score and Combined ESG Score on the financial performance of selected Indian Power& Energy Companies.

Sample and Scope of Study: Convenience sampling method is used to select the top 10 energy and power based companies selected based on their market capitalisation listed on BSE are considered for this study. The time period of the current study is the 2022-23 and 2023-24 .However 10 out of 40 companies listed on BSE Stock index namely NTPC, Power Green, and Adani Green, Adani power, TATA power, NTPC Green energy, Adani green energy solutions, JSW Energy, NHPC and Torrent power.

Limitations of the study:

- The time period of the study is restricted to two financial years.
- ESG Scores doesn’t express the true ESG Practices of the firm.

Analysis and Interpretation:

Table 1.1: Descriptive Statistics

Descriptive Statistics	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
ROA	10	21.32	3.62	24.94	7.9700	6.75661	45.652
ROE	10	56.79	2.00	58.79	14.4990	16.41543	269.466
ENVIRONMENT	10	31.00	36.00	67.00	48.6000	10.92601	119.378
GOVERNANCE	10	21.00	51.00	72.00	60.0000	6.68331	44.667
SOCIAL	10	38.00	29.00	67.00	58.2000	11.82089	139.733
COMB.SCORE	10	97.00	128.00	225.00	170.8000	27.01358	729.733
Valid N (listwise)	10						

(Source: Computed by author)

On the basis of the above the descriptive statistics tables it can be analysed that ROE and ROA has high degree of variability whereas the environment, social and governance score showing moderate level of variability. On the other hand combined score of ESG showing highest degree of variability with large spread between minimum and maximum values As the descriptive statistics results suggest, Environment, Social and Governance score in the panel range from 48 to 60 with the highest mean of Governance score 60 and lowest mean value of Environment score 48 respectively. For the dependent variables mean and of ROA and ROE is 7.97 and 14.49 respectively. In general the data reveals that some variables like governance and ROA show moderate variation, others like ROE, social, and combined scores exhibit more substantial differences across the sample.



Table 1.2 Pearson Correlation Coefficient:

Correlations		ROA	ROE	ENVIRONMENT	GOVERNANCE	SOCIAL	COMB.SCORE
ROA	Pearson Correlation	1	.777**	.789**	.093	.095	.278
	Sig. (2-tailed)		.008	.007	.797	.795	.437
	N	10	10	10	10	10	10
ROE	Pearson Correlation	.777**	1	.402	.173	.202	.203
	Sig. (2-tailed)	.008		.249	.632	.577	.574
	N	10	10	10	10	10	10
ENVIRONMENT	Pearson Correlation	.789**	.402	1	.304	.211	.669*
	Sig. (2-tailed)	.007	.249		.393	.558	.035
	N	10	10	10	10	10	10
GOVERNANCE	Pearson Correlation	.093	.173	.304	1	.032	.483
	Sig. (2-tailed)	.797	.632	.393		.929	.157
	N	10	10	10	10	10	10
SOCIAL	Pearson Correlation	.095	.202	.211	.032	1	.640*
	Sig. (2-tailed)	.795	.577	.558	.929		.046
	N	10	10	10	10	10	10
COMB.S CORE	Pearson Correlation	.278	.203	.669*	.483	.640*	1
	Sig. (2-tailed)	.437	.574	.035	.157	.046	
	N	10	10	10	10	10	10

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

* . Correlation is significant at the 0.05 level (2-tailed).

(Source: Computed by author)

Interpretation

On the basis of the above table of person correlation coefficient it can be summarised that **ROA and Environment** having aStrong positive correlation of 0.789 at a significant level 0.01 level ($p = 0.007$).Whereas **ROA and Governance** showing No significant correlation (0.093, $p = 0.797$) also **ROA and Social** having insignificant correlation (0.095, $p = 0.795$) and **ROA and Combined Score** showing Moderate positive correlation (0.278) but not significant in nature ($p = 0.437$).

On the other hand **ROE and Environment** havingModerate positive correlation (0.402), but not significant ($p = 0.249$) also **ROE and Governance** showingNo significant correlation (0.173, $p = 0.632$),



ROE and Social defining no significant correlation (0.202, $p = 0.577$) and last but not the least **ROE and Combined Score** showing No significant correlation (0.203, $p = 0.574$).

Overall the results of correlation shows that ROA is strongly and positively linked with Environment score and having significant correlation (0.789, $p < 0.01$) whereas the relationship of ROA with other variables like Social Score, Governance Score and Combined ESG Score is insignificant.

Regression analysis:

Table 1.3 Model Coefficient ROA				
Predictor	Estimates	SE	T	P
Intercept	-12.215	14.696	-.831	.444
Environment Scores	.765	.189	4.039	.010
Social Scores	.109	.267	.409	.699
Governance Scores	.207	.186	1.117	.315
Combined ESG Scores	-.208	.116	-1.795	.133
Model Fit Measures				
Model	R= .888^a			
	R2 =.789			

The above table 1.3 indicate the impact of Combined Score, Environment Score, Social Score and Governance Score over ROA. A p-value of **0.061** indicates that the model is not statistically significant at the 0.05 level, but it is quite close to the threshold. It suggests that there may be some effect, but the evidence is not strong enough to reject the null hypothesis at the usual 5% significance level. The F-statistic suggests that the regression model as a whole is somewhat meaningful. However, with a p-value of **0.061**, it doesn't reach the usual threshold for statistical significance (0.05), meaning we can't conclusively say that the independent variables (COMB.SCORE, GOVERNANCE, ENVIRONMENT, and SOCIAL) are significantly related to ROA at the 5% level and we might conclude that there is some evidence of a relationship between the predictors (COMB.SCORE, GOVERNANCE, ENVIRONMENT, and SOCIAL) and the dependent variable (ROA), but it's not strong enough to definitively claim significance. At the 10% level, the model would be considered marginally significant.

Table 1.4 Model Coefficient ROE

Predictor	Estimates	SE	T	P
Intercept	-45.871	65.606	-.699	.516
Environment Scores	1.043	.845	1.234	.272
Social Scores	.741	1.192	.622	.561
Governance Scores	.718	.829	.866	.426
Combined ESG Scores	-.448	.519	-.865	.427
Model Fit Measures				
Model	R= .535^a			
	R2 =.286			

The above table 1.4 indicate the impact of Combined Score, Environment Score, Social Score and Governance Score over ROE. This is the p-value for the F-test, which tests whether the overall regression model is significant. A p-value of 0.739 is much higher than the typical significance level of 0.05, indicating that the model is **not statistically significant**. This suggests that the predictors (COMB.SCORE, GOVERNANCE, ENVIRONMENT, SOCIAL) do not significantly explain variations in ROE which implies that the null hypothesis accepted and it reveals that the ESG scores as well as it combined ESG Scores does having a significant impact over ROE. The F-statistic (0.501) also suggests that the model does not provide a good fit for the data.



Conclusion

This study has shed the valuable insight on the relationship between ESG (Environmental, Social and Governance) scores and the financial performance of the Energy and power industry in India. This study sought to achieve two main goals: First to define the relationship of ESG Scores with ROA and ROE and second objective is to determine the impact of ESG Score on the financial performance of the selected companies. Findings of this study indicate that ROA as a financial performance indicator showing a strong and positive relationship with the Environment scores, moderate but insignificant relationship with other independent variables. On the other hand ROE does not showing significant relationship with any of the selected independent variables. However findings of the regression analysis provided that there is quite close relationship of ROA but not significant with (COMB.SCORE, GOVERNANCE, ENVIRONMENT, and SOCIAL also ROE showing insignificant relationship with Independent variables. Overall it is to be suggested that investors should look beyond ROA and ROE in term of assessing the company financial health or recommended exploring additional variables or some other performance indicators such as market conditions, stock prices etc. Also it is to be recommended to have better investor awareness in terms of educating them about the non-financial benefit of ESG Performance as it could lead to sustained growth and risk management benefits in future. Additionally regulatory compliances, stock prices, governance policies and investor preferences may provide deeper insight in shaping the relationship of ESG and Financial performance.

References

- Liu, Dingding. (2022). The Impact of ESG on Financial Performance of Listed Companies - An Analysis Based on Corporate Reputation Perspective. *BCP Business & Management*. 20. 1258-1273. 10.54691/bcpbm.v20i.1125.
- Tao Fu & Jianjung Li(2023) "An empirical analysis of the impact of ESG on the financial performance :the moderating role of digital transformation".*Sec.Environmental Economics and Mangament*,Volume 11,1-11 <https://doi.org/10.3389/fenvs.2023.1256052>
- Kalia, Deepali & Aggarwal, Divya. (2022). Examining impact of ESG score on financial performance of healthcare companies. *Journal of Global Responsibility*. 14.<http://dx.doi.org/10.1108/JGR-05-2022-0045>
- Setiani, Eko. (2023). The Impact of ESG Scores on Corporate Financial Performance: Moderating Role of Gender Diversity. *Nominal Barometer Riset Akuntansi dan Manajemen*. 12. 128-139. 10.21831/nominal.v12i1.59778. <http://dx.doi.org/10.21831/nominal.v12i1.59778>
- Amar Rao, Vishal Dagar, Kazi Sohag, Leila Dagher & Tauhidul Islam Tanin (2023) " Good for the planet, good for the wallet :The ESG impact on financial performance in India. *Finance Research letters*, vol 56,<https://doi.org/10.1016/j.frl.2023.104093>
- Anklesaria-Dalal, Karishma & Thaker, Nimit. (2019). ESG and Corporate Financial Performance: A Panel Study of Indian Companies. 18. 44-59.
- Wang, Fei. (2024). The Impact of ESG on Financial Performance: An Empirical Analysis of Listed Companies in China. *Advances in Economics, Management and Political Sciences*. 83. 207-214. 10.54254/2754-1169/83/20240748. <http://dx.doi.org/10.54254/2754-1169/83/20240748>
- Priyanka Devi & Sapna (2024)"Relationship of ESG Scores with financial performance :A study of Indian listed companies "2(2) <https://doi.org/10.1177/jinm.241242865>
- Vishal Patel & Kumar Aditya (2024) " ESG impact on financial performance: A study of Metal Industry in India" *OPJU Business Review*, 1-10
- Sanjay Bhayani & Butul Ajmera (2023) "A study on effect of an environment, social and governance score on Financial performance of BSE-30 companies in India. *XLIV*, , ISSN 0970-9657 13-23 <https://www.crisil.com/content/crisilcom/en/home/what-we-do/financial-products/crisils-sustainability-solutions/esg-score-2022.html>
www.moneycontrol.com

**TRANSPARENCY IN TRANSITION: FINANCIAL DISCLOSURE PRACTICES AND THEIR
IMPACT ON INDIAN CORPORATE GOVERNANCE**

By

Rahul N. Parmar

Ph.D. Scholar

Department of Commerce and Management, SGGU, Godhra

Abstract

Financial disclosure plays a critical role in ensuring transparency, accountability, and effective corporate governance. In India, while the importance of financial disclosure has been recognized, the current practices face several challenges, including inconsistencies in reporting, inadequate regulatory enforcement, and limited technological adoption. This paper explores the evolution of financial disclosure practices in India, examines their impact on corporate governance, and highlights both the challenges and opportunities that arise in the process. The study emphasizes the need for regulatory improvements, simplification of reporting standards, and the adoption of technology to enhance transparency. It also discusses the increasing importance of voluntary disclosures, stakeholder engagement, and the integration of sustainability factors into financial reporting. By addressing these areas, Indian companies can improve the quality and timeliness of their disclosures, attract global investments, and strengthen their corporate reputation. The findings suggest that enhanced financial transparency will contribute to a more robust, ethical, and competitive corporate environment in India.

Keywords: Financial Disclosure, Corporate Governance, Financial Reporting, Voluntary Disclosures, Financial Transparency

Introduction

Financial disclosure refers to the process by which companies communicate financial information to their stakeholders, including investors, regulators, creditors, and the general public. This practice is fundamental to corporate transparency and accountability, serving as a cornerstone of trust in the business environment. At its core, financial disclosure encompasses a company's financial statements, such as balance sheets, income statements, and cash flow statements, along with explanatory notes, management discussions, and other relevant data. By providing a clear picture of a company's financial health and operational performance, disclosures enable stakeholders to make informed decisions and foster confidence in the corporate sector.

In the context of modern business, financial disclosure is no longer limited to basic reporting. It has evolved into a dynamic practice that integrates both mandatory and voluntary elements. Mandatory disclosures are governed by regulatory frameworks such as the Companies Act, SEBI regulations, and applicable accounting standards like Ind AS or IFRS. These requirements ensure uniformity and comparability across industries, which is critical for maintaining a level playing field in the market. Voluntary disclosures, on the other hand, go beyond regulatory mandates and often reflect a company's commitment to transparency. Such disclosures may include detailed insights into future strategies, risk management frameworks, and sustainability initiatives. The importance of financial disclosure lies in its ability to bridge the information gap between a company's management and its stakeholders. Without transparent reporting, stakeholders are left to speculate about a company's financial standing, which can lead to mistrust and misinformed decision-making. Accurate and timely disclosures, on the other hand, enhance credibility and allow investors to assess the company's profitability, solvency, and long-term viability. For regulators, these disclosures are essential for monitoring compliance with laws and ensuring that businesses operate ethically and efficiently.



Financial disclosure also plays a pivotal role in corporate governance. It ensures that directors, executives, and other decision-makers are held accountable for their actions. By providing a transparent view of a company's financial and operational status, disclosures help mitigate risks of fraud, mismanagement, and financial irregularities. Furthermore, in a globalized economy where companies often compete across borders, robust financial reporting is crucial for aligning with international standards and attracting foreign investments. However, the concept of financial disclosure is not without challenges. Companies often face difficulties in balancing the need for transparency with the protection of sensitive information. Striking this balance is particularly challenging in competitive industries where disclosing too much could compromise a company's strategic position. Despite these challenges, the growing emphasis on corporate social responsibility and sustainability has further broadened the scope of financial disclosure, making it an indispensable element of modern business practices.

Types of Financial Disclosures: Mandatory vs. Voluntary

Financial disclosures can be broadly categorized into **mandatory** and **voluntary** disclosures, each serving distinct but complementary purposes in fostering transparency and accountability within organizations. These two types of disclosures differ in their regulatory requirements, scope, and motivations, but both are essential for effective corporate governance and stakeholder trust.

Mandatory Financial Disclosures

- Mandatory financial disclosures are those that companies are legally required to provide in compliance with regulatory frameworks and accounting standards. These disclosures are designed to ensure uniformity, comparability, and transparency across businesses and industries. In India, such requirements are governed by the Companies Act, SEBI (Listing Obligations and Disclosure Requirements) Regulations, and the Indian Accounting Standards (Ind AS), among other frameworks.
- Examples of mandatory disclosures include financial statements such as balance sheets, income statements, and cash flow statements, along with explanatory notes. Other requirements may include management discussion and analysis (MD&A), corporate governance reports, and disclosure of related party transactions. These disclosures provide critical insights into a company's financial health, operational performance, and risk management practices.
- The primary purpose of mandatory disclosures is to protect the interests of stakeholders, particularly investors and creditors, by ensuring that companies provide accurate, timely, and standardized information. Non-compliance with these requirements can result in legal penalties, reputational damage, and a loss of stakeholder confidence.

Voluntary Financial Disclosures

- Voluntary disclosures, on the other hand, are not legally mandated but are provided at the discretion of the company. These disclosures reflect a company's proactive approach to transparency and its commitment to fostering trust and goodwill among stakeholders. Voluntary disclosures often go beyond the statutory requirements to provide a more comprehensive view of the company's operations, strategies, and future outlook.
- Common examples of voluntary disclosures include detailed risk assessments, forward-looking statements, sustainability and corporate social responsibility (CSR) reports, and disclosures related to Environmental, Social, and Governance (ESG) factors. Companies may also voluntarily share information on their market strategies, innovation initiatives, and community impact.
- The motivation for voluntary disclosures often stems from a desire to enhance a company's reputation, attract investors, and strengthen relationships with stakeholders. In a competitive business environment, voluntary disclosures can differentiate a company by showcasing its commitment to transparency, ethical practices, and long-term sustainability.



The Interplay between Mandatory and Voluntary Disclosures

While mandatory disclosures establish a baseline for transparency, voluntary disclosures provide an opportunity for companies to go beyond compliance and build a narrative of trust and accountability. Together, they offer stakeholders a holistic view of a company's financial and operational standing. For instance, a company that complies with mandatory disclosure requirements will meet regulatory standards, but one that supplements this with voluntary ESG reporting may attract socially conscious investors and enhance its global competitiveness. Conversely, reliance solely on voluntary disclosures without fulfilling mandatory requirements can lead to skepticism and erode stakeholder confidence.

Literature Review

Al-Shammari (2020) conducted an empirical study examining the relationship between corporate governance mechanisms and the extent of voluntary financial disclosure among firms listed on the Kuwait Stock Exchange. The research focused on variables such as board composition, ownership structure, and audit committee characteristics. The findings revealed that firms with a higher proportion of independent directors and a more active audit committee were associated with increased levels of voluntary disclosure. Additionally, the presence of institutional investors as significant shareholders positively influenced disclosure practices. The study concluded that robust corporate governance frameworks enhance transparency by promoting more comprehensive financial disclosures.

García-Sánchez et al. (2020) explored the impact of board diversity on financial disclosure quality in European multinational corporations. The study analyzed data from companies across various industries, focusing on gender diversity, educational background, and international experience of board members. The results indicated that boards with greater diversity, particularly in terms of gender and international experience, were linked to higher quality financial disclosures. The authors concluded that diverse boards bring a wide range of perspectives and expertise, leading to more thorough and transparent reporting practices.

Habbash (2021) investigated the effect of corporate governance characteristics on the timeliness of financial reporting among Saudi Arabian listed companies. The study examined factors such as board size, CEO duality, and the frequency of board meetings. The findings suggested that smaller board sizes and the separation of the CEO and chairperson roles were associated with more timely financial disclosures. Frequent board meetings also contributed to reducing reporting delays. The study concluded that effective corporate governance structures play a crucial role in ensuring the promptness of financial information dissemination.

Khlif and Samaha (2021) conducted a meta-analysis to assess the relationship between audit committee characteristics and voluntary financial disclosure in emerging markets. The analysis encompassed multiple studies, focusing on audit committee independence, expertise, and meeting frequency. The results demonstrated a positive association between audit committee independence and expertise with the extent of voluntary disclosure. However, the frequency of audit committee meetings showed a weaker correlation. The authors concluded that strengthening audit committee structures is vital for enhancing voluntary disclosure practices in emerging economies.

Li and Qi (2022) examined the influence of state ownership on corporate governance and financial disclosure practices in Chinese publicly listed companies. The study analyzed the role of government ownership in shaping board composition and its subsequent effect on disclosure quality. The findings revealed that higher state ownership often led to less independent boards, which negatively impacted the quality of financial disclosures. The study concluded that reducing state ownership and increasing board independence are essential steps toward improving transparency in financial reporting within China's corporate sector.



Ntim et al. (2022) explored the relationship between corporate governance and environmental disclosure practices in South African firms. The research focused on board characteristics, including independence, diversity, and the presence of sustainability committees. The findings indicated that firms with a higher proportion of independent and diverse board members, as well as dedicated sustainability committees, were more likely to provide comprehensive environmental disclosures. The study concluded that effective corporate governance not only enhances financial transparency but also promotes broader accountability through environmental reporting.

Ofoegbu and Odoemelum (2023) investigated the determinants of internet financial reporting among Nigerian listed companies, with a focus on corporate governance attributes. The study assessed factors such as board independence, audit committee effectiveness, and managerial ownership. The results showed that firms with more independent boards and effective audit committees were more inclined to engage in internet financial reporting. Managerial ownership, however, had a negative association with online disclosure practices. The study concluded that strengthening corporate governance mechanisms is crucial for enhancing transparency through digital financial disclosures.

Yasser and Al Mamun (2023) analysed the impact of corporate governance reforms on financial disclosure quality in Pakistani listed companies. The study evaluated the effectiveness of regulatory changes aimed at improving board structures, audit practices, and shareholder rights. The findings indicated that post-reform, there was a significant improvement in the quality and comprehensiveness of financial disclosures. The study concluded that regulatory interventions in corporate governance can lead to substantial enhancements in transparency and accountability within emerging markets.

Importance of Financial Disclosure for Stakeholders

Financial disclosure is a critical component of corporate transparency, serving as a vital tool for stakeholders to understand a company's financial health, operational efficiency, and long-term viability. By offering a detailed view of financial performance and risks, it empowers various stakeholders—investors, regulators, and the general public—to make informed decisions and hold businesses accountable.

Importance for Investors

- For investors, financial disclosure is indispensable as it provides the data necessary to evaluate a company's profitability, stability, and growth potential. Financial statements such as balance sheets, income statements, and cash flow reports offer insights into a company's earnings, expenses, assets, and liabilities. This information helps investors assess the risk-return profile of their investments and make decisions aligned with their financial goals.
- Transparent disclosures also play a key role in fostering investor confidence. When companies openly share their financial information, they signal accountability and reliability, which enhances their credibility in the eyes of current and prospective investors. Conversely, inadequate or misleading disclosures can erode trust and lead to reduced investor interest or capital flight.
- Furthermore, financial disclosures enable investors to compare performance across companies and industries, facilitating more effective portfolio diversification. For institutional investors such as mutual funds or pension funds, accurate disclosures are essential for complying with fiduciary responsibilities and ensuring that investments align with risk tolerance and performance expectations.

Importance for Regulators

- For regulators, financial disclosures are crucial in maintaining market integrity and stability. Regulators such as the Securities and Exchange Board of India (SEBI) rely on disclosures to



monitor compliance with laws, accounting standards, and corporate governance practices. These disclosures help detect potential violations, fraud, or financial mismanagement, thereby safeguarding the interests of investors and the broader financial system.

- Financial disclosures also provide regulators with data to assess systemic risks in the economy. For example, disclosures on debt levels, non-performing assets, or contingent liabilities allow regulators to identify vulnerabilities that could impact financial markets or lead to economic crises.
- Additionally, robust disclosure practices enhance the global competitiveness of the regulatory framework. When companies adhere to international accounting standards and provide high-quality disclosures, it helps align India's financial markets with global best practices, attracting foreign investments and bolstering economic growth.

Importance for the Public

- For the general public, financial disclosures contribute to economic awareness and accountability. Transparent reporting allows individuals to understand the role companies play in the economy and their impact on societal well-being. Public stakeholders, including consumers, employees, and community members, can use disclosures to assess a company's ethical and sustainable practices, ensuring alignment with their personal values.
- In the era of Environmental, Social, and Governance (ESG) considerations, financial disclosures are increasingly linked to a company's societal impact. Voluntary disclosures related to corporate social responsibility or sustainability initiatives provide the public with insights into how companies address issues like environmental protection, labour practices, and community development.
- For employees, financial disclosures can offer reassurance about job security and the company's long-term prospects. Similarly, for local communities, disclosures related to environmental risks or community development initiatives can highlight the company's commitment to responsible practices.

Evolution of Financial Disclosure Practices in India

The evolution of financial disclosure practices in India reflects the country's economic transformation, regulatory reforms, and the growing demand for corporate transparency. From a basic system of reporting to a sophisticated framework governed by international standards, financial disclosures in India have undergone significant changes to align with the needs of a dynamic and globalized economy.

Early Years: Post-Independence Era

In the years following India's independence in 1947, financial disclosure practices were minimal and largely driven by the Companies Act of 1956. This legislation required companies to prepare and present basic financial statements, including profit and loss accounts and balance sheets, to shareholders and regulatory authorities. However, the focus was primarily on meeting statutory requirements rather than promoting transparency. At this stage, the lack of standardized accounting norms and weak enforcement mechanisms limited the scope and reliability of disclosures. Companies often had significant discretion in how they reported financial data, resulting in inconsistencies and limited comparability across industries.

Liberalization and the Shift Towards Transparency

The economic liberalization of 1991 marked a turning point for financial disclosure practices in India. As the country opened its economy to foreign investments and privatization, there was a growing need for greater transparency to attract international investors. The introduction of the Securities and



Exchange Board of India (SEBI) in 1992 added a regulatory authority dedicated to overseeing corporate disclosures and ensuring compliance with global norms. SEBI introduced mandatory disclosure requirements for publicly listed companies, such as quarterly financial reporting, corporate governance reports, and disclosures of material events. These reforms were instrumental in increasing accountability and reducing information asymmetry between companies and stakeholders.

Adoption of Accounting Standards

In the late 1990s and early 2000s, India began adopting accounting standards issued by the Institute of Chartered Accountants of India (ICAI). These standards, known as Indian Generally Accepted Accounting Principles (Indian GAAP), brought a level of uniformity to financial reporting. The Companies (Amendment) Act, 2000, further enhanced the framework by introducing provisions for more detailed disclosures, particularly regarding directors' responsibilities, related party transactions, and corporate governance practices.

Globalization and the Move Towards IFRS

With the globalization of financial markets, India recognized the need to align its disclosure practices with international standards. This led to the phased adoption of Indian Accounting Standards (Ind AS), which are converged with the International Financial Reporting Standards (IFRS). Implemented for large companies from 2016, Ind AS introduced more comprehensive and transparent reporting practices, particularly in areas such as fair value measurement, revenue recognition, and financial instruments. Ind AS not only improved the quality and comparability of financial statements but also enhanced India's global standing as an investment destination. This transition marked a significant milestone in India's journey towards adopting best practices in financial reporting.

Technological Advancements and Real-Time Disclosures

The digital revolution has had a profound impact on financial disclosure practices in India. With the advent of online platforms and regulatory requirements like XBRL (eXtensible Business Reporting Language) filing, companies are now able to report financial data in a standardized and machine-readable format. This has improved the accessibility and analysis of financial information for stakeholders. The rise of real-time and event-based disclosures, as mandated by SEBI's Listing Obligations and Disclosure Requirements (LODR) Regulations, has further enhanced transparency. Companies are now required to disclose material events and price-sensitive information promptly, ensuring that stakeholders have up-to-date knowledge of corporate developments.

ESG and Sustainability Reporting

In recent years, the focus of financial disclosures has expanded beyond traditional financial metrics to include Environmental, Social, and Governance (ESG) factors. SEBI's mandate for the top 1,000 listed companies to publish Business Responsibility and Sustainability Reports (BRSR) is a testament to this shift. ESG disclosures highlight a company's impact on society and the environment, addressing the growing demand for sustainable and responsible business practices.

Post-Pandemic and the Road Ahead

The COVID-19 pandemic underscored the importance of transparent financial disclosures in maintaining stakeholder confidence during crises. Companies were required to disclose the pandemic's impact on their operations, liquidity, and risk management strategies, setting a precedent for future event-based disclosures. Looking ahead, India's financial disclosure practices are expected to continue evolving with advancements in technology, the increasing integration of ESG factors, and the globalization of financial markets. The push for more detailed and real-time disclosures, combined with stricter regulatory oversight, will further strengthen the framework, ensuring that India remains a competitive and trustworthy destination for investors.



Financial Disclosure and Corporate Governance

Financial disclosure and corporate governance are intrinsically linked, forming the cornerstone of trust and accountability in the corporate world. While financial disclosure refers to the practice of providing accurate and timely information about a company's financial health and performance, corporate governance encompasses the framework of rules, practices, and processes by which a company is directed and controlled. Together, they ensure transparency, protect stakeholder interests, and promote sustainable business practices.

The Role of Financial Disclosure in Corporate Governance

Financial disclosure is a critical component of effective corporate governance, enabling stakeholders to evaluate a company's financial and operational integrity. Transparent financial reporting fosters accountability, as it ensures that directors, executives, and management act in the best interests of shareholders and other stakeholders. Disclosures provide insight into a company's financial condition, including profitability, liquidity, and solvency, as well as its adherence to statutory requirements and ethical standards. For boards of directors, this information is essential for making informed decisions and evaluating the performance of senior management. For shareholders and investors, financial disclosures help assess the risks and returns associated with their investments.

Moreover, financial transparency reduces the likelihood of fraud, mismanagement, and insider trading, thereby safeguarding the integrity of the market. It also strengthens the company's reputation and enhances stakeholder trust, which are critical for long-term success.

Mandatory Financial Disclosures and Corporate Governance

Mandatory financial disclosures, regulated by laws such as the Companies Act, 2013, and overseen by entities like the Securities and Exchange Board of India (SEBI), form the backbone of corporate governance in India. These disclosures include financial statements, auditor's reports, corporate governance reports, and details of related party transactions. The Listing Obligations and Disclosure Requirements (LODR) Regulations introduced by SEBI emphasize timely and accurate reporting of material events, ensuring that stakeholders have access to crucial information. For example, disclosures regarding board meetings, changes in management, and significant financial transactions provide transparency into corporate decision-making processes. The introduction of Indian Accounting Standards (Ind AS), aligned with International Financial Reporting Standards (IFRS), has further enhanced the comparability and reliability of financial information, promoting better governance practices.

Voluntary Financial Disclosures and Governance

While mandatory disclosures set the minimum standard, voluntary disclosures often reflect a company's commitment to higher governance standards. Many companies go beyond statutory requirements by providing additional information on sustainability practices, corporate social responsibility (CSR), risk management, and forward-looking statements. Such proactive transparency demonstrates a company's dedication to ethical conduct and sustainable growth. It also enhances investor confidence and broadens access to global capital markets. Companies that prioritize voluntary disclosures often enjoy a competitive edge, as they are perceived as more trustworthy and resilient.

Benefits of Financial Disclosure for Corporate Governance

- **Improved Accountability:** Comprehensive financial disclosures hold executives and boards accountable for their decisions, ensuring alignment with stakeholder interests.
- **Enhanced Decision-Making:** Transparent reporting provides accurate data for stakeholders to make informed investment, regulatory, and operational decisions.



- **Reduced Risk of Misconduct:** Financial transparency minimizes opportunities for fraud, corruption, and financial mismanagement.
- **Stakeholder Confidence:** Disclosures build trust among investors, creditors, and the public, strengthening the company's reputation.
- **Global Alignment:** Adherence to international disclosure standards boosts a company's credibility in global markets, attracting foreign investments.

Challenges in Financial Disclosure and Governance

Despite the benefits, there are challenges in achieving optimal financial disclosure practices. Companies may face difficulties in balancing transparency with the confidentiality of proprietary information. Compliance costs, especially for small and medium enterprises (SMEs), can also be a concern. Instances of corporate scandals, such as the Satyam case, highlight the risks associated with inadequate or misleading disclosures. Such incidents underscore the need for stricter enforcement of regulations, better audit mechanisms, and a culture of ethical governance.

Challenges in Financial Disclosure Practices in India

Financial disclosure is a vital aspect of corporate governance and transparency, enabling stakeholders to make informed decisions and maintain trust in businesses. However, financial disclosure practices in India face numerous challenges that hinder their effectiveness and reliability. These challenges arise from regulatory shortcomings, technological limitations, and corporate culture, among other factors.

Lack of Standardization Across Sectors

Despite the adoption of Indian Accounting Standards (Ind AS) aligned with International Financial Reporting Standards (IFRS), significant variations exist in disclosure practices across industries. Companies interpret and implement disclosure requirements differently, leading to inconsistencies in financial reporting. This lack of standardization makes it challenging for stakeholders to compare the performance and financial health of companies operating in the same sector.

Compliance Costs for Smaller Firms

While large corporations often have the resources to comply with rigorous disclosure requirements, small and medium enterprises (SMEs) struggle with the financial and administrative burden of compliance. Preparing detailed financial reports, adhering to complex regulations, and engaging professional auditors can be costly for smaller firms, leading to either partial compliance or avoidance of disclosures altogether.

Quality and Timeliness of Disclosures

In some cases, companies provide disclosures that are incomplete, outdated, or of poor quality. The emphasis on meeting statutory deadlines often results in hurried reporting, which may overlook crucial details or fail to provide an accurate representation of a company's financial health. This undermines the very purpose of financial disclosures, which is to foster transparency and trust.

Weak Enforcement of Regulations

Although India has robust regulatory frameworks, such as the Companies Act, 2013, and SEBI's Listing Obligations and Disclosure Requirements (LODR) Regulations, enforcement remains a challenge. Regulatory authorities often lack the resources to monitor and penalize non-compliance effectively. High-profile corporate scandals, such as the Satyam fraud, have exposed gaps in regulatory oversight and emphasized the need for stricter enforcement mechanisms.



Complexity of Disclosure Requirements

The increasing complexity of financial reporting standards poses challenges for companies and auditors. For instance, the transition to Ind AS introduced sophisticated concepts like fair value accounting and financial instruments, which require advanced knowledge and expertise. Many companies, particularly those in traditional sectors, find it difficult to interpret and implement these standards effectively.

Limited Technological Integration

While technological advancements such as XBRL (eXtensible Business Reporting Language) filing have been introduced to improve reporting efficiency, many companies in India are yet to fully integrate technology into their disclosure processes. Manual preparation and filing of financial statements increase the risk of errors, delays, and inaccuracies.

Balancing Transparency with Confidentiality

Companies often face a dilemma in balancing transparency with the need to protect proprietary information. Disclosing sensitive financial details, such as competitive strategies, pricing models, or contractual terms, could potentially harm a company's market position. This leads to cautious or selective disclosure practices that may fail to provide a complete picture to stakeholders.

Resistance to Voluntary Disclosures

While mandatory disclosures are regulated, voluntary disclosures remain underdeveloped in India. Many companies are reluctant to provide additional information beyond statutory requirements, fearing increased scrutiny or exposure of internal weaknesses. This resistance limits the scope of transparency and inhibits stakeholder confidence.

Cultural and Ethical Challenges

Corporate culture and ethical standards significantly influence disclosure practices. In some organizations, there is a lack of commitment to transparency, driven by a focus on short-term gains rather than long-term accountability. This cultural challenge is compounded by the prevalence of insider trading, corruption, and fraudulent reporting in certain segments of the corporate world.

Evolving Regulatory Landscape

The regulatory environment in India is dynamic, with frequent amendments and updates to disclosure norms. While these changes aim to improve transparency, they also create challenges for companies in keeping up with new requirements. Frequent changes necessitate continuous investment in training, systems, and processes, which can be burdensome, especially for smaller organizations.

Opportunities for Enhanced Transparency

Enhanced transparency in financial disclosure presents numerous opportunities for businesses, stakeholders, and the economy as a whole. It serves as a catalyst for trust, efficiency, and accountability, helping companies achieve sustainable growth while fostering a robust and resilient economic environment. The following opportunities highlight the potential benefits of embracing enhanced transparency:

Building Investor Confidence

Transparent financial disclosures enable investors to make informed decisions by providing accurate insights into a company's financial health, risks, and future prospects. Enhanced transparency reduces uncertainty, making companies more attractive to both domestic and international investors. This can lead to better access to capital and lower financing costs.



Strengthening Corporate Governance

Comprehensive financial disclosures play a pivotal role in improving corporate governance practices. Transparent reporting ensures that boards of directors and management are held accountable for their actions, aligning their goals with stakeholder interests. This creates an ethical and responsible organizational culture, reducing the risk of fraud and mismanagement.

Gaining Competitive Advantage

Companies that prioritize transparency can differentiate themselves in the market. Transparent practices build a reputation for integrity and reliability, which appeals to investors, customers, and business partners. This competitive edge can translate into increased market share and stronger brand loyalty.

Facilitating Global Integration

With globalization, businesses are increasingly seeking cross-border investments and partnerships. Transparent financial disclosures, particularly those aligned with international standards like IFRS, improve a company's credibility in global markets. This opens doors to foreign investments, international collaborations, and access to global capital markets.

Supporting Regulatory Compliance

Enhanced transparency helps companies comply with evolving regulatory requirements, reducing the risk of penalties and legal complications. Proactive disclosure practices can also improve relationships with regulators, leading to smoother operations and faster approvals for business initiatives.

Improving Decision-Making

Transparent disclosures provide management with a clear and accurate view of the company's financial performance and risks. This helps in better strategic planning, resource allocation, and decision-making. It also aids stakeholders, such as lenders and suppliers, in assessing creditworthiness and financial stability.

Promoting Ethical Business Practices

Transparency fosters a culture of honesty and accountability, discouraging unethical practices such as insider trading, financial manipulation, or corruption. This contributes to a healthier business ecosystem, improving the overall perception of the corporate sector.

Enhancing Stakeholder Relationships

Clear and timely disclosures build trust among all stakeholders, including employees, customers, creditors, and the community. Transparent communication demonstrates a company's commitment to ethical practices and long-term sustainability, strengthening stakeholder loyalty and engagement.

Leveraging Technology for Better Reporting

Technological advancements, such as blockchain, artificial intelligence (AI), and XBRL (eXtensible Business Reporting Language), offer opportunities to enhance transparency in financial reporting. These technologies can improve accuracy, reduce reporting delays, and provide real-time access to financial data, increasing stakeholder confidence.

Encouraging Innovation and Long-Term Growth

Transparency attracts investors who are willing to support innovative projects and long-term growth strategies. By demonstrating accountability and sound financial health, companies can secure funding for research, development, and expansion initiatives, driving sustained success.



Fostering Economic Stability

At the macro level, enhanced transparency across the corporate sector contributes to economic stability and growth. Transparent practices reduce systemic risks, increase market efficiency, and improve the credibility of financial markets, creating a more resilient economy.

Conclusion

Financial disclosure is a cornerstone of effective corporate governance and plays a crucial role in maintaining transparency, accountability, and trust between companies and their stakeholders. In India, while significant strides have been made in improving disclosure practices, challenges such as inconsistency in reporting, lack of regulatory enforcement, and limited technological integration still exist. However, these challenges also present opportunities for growth, innovation, and enhancement of financial reporting practices. By adopting more rigorous regulatory oversight, simplifying reporting standards, leveraging technology, and fostering a culture of transparency, Indian companies can improve the quality and reliability of their financial disclosures. These efforts will not only benefit investors, regulators, and the public but will also enable businesses to gain a competitive edge, attract investment, and foster long-term growth.

The integration of environmental, social, and governance (ESG) factors into financial disclosures is another emerging trend that offers opportunities for Indian companies to demonstrate their commitment to sustainable practices and build stronger relationships with stakeholders. As financial transparency becomes an increasingly important aspect of corporate operations, businesses that embrace enhanced disclosure practices will be better equipped to thrive in a dynamic and interconnected global economy. Ultimately, improving financial disclosure in India will contribute to a more resilient and trustworthy corporate ecosystem, ensuring that companies remain accountable, ethical, and responsive to the needs of all stakeholders. Through concerted efforts, India can move towards a future where financial transparency is not just a regulatory requirement but a competitive advantage that drives sustainable success.

References

- Abraham, S., Marston, C., & Jones, E. (2015). Disclosure by Indian companies following corporate governance reform. *Journal of Applied Accounting Research*, 16(1), 114-137.
- Al-Shammari, B. (2020). Corporate governance and voluntary disclosure in Kuwait. *International Journal of Disclosure and Governance*, 17(1), 1-15.
- Bhasin, M. L., & Manama, A. (2011). Corporate governance disclosure practices in India: An empirical study. *International Journal of Contemporary Business Studies*, 2(4), 34-57.
- Bhatia, A., & Tuli, S. (2014). An empirical analysis of sustainability disclosure practices: Evidence from India and China. *IIM Kozhikode Society & Management Review*, 3(2), 135-148.
- Chaklader, B., & Gulati, P. A. (2015). A study of corporate environmental disclosure practices of companies doing business in India. *Global Business Review*, 16(2), 321-335.
- Dasgupta, M. (2003). A study of company characteristics associated with financial disclosure practices in India.
- García-Sánchez, I. M., Martínez-Ferrero, J., & García-Meca, E. (2020). Board diversity and its effects on bank performance: An international analysis. *Journal of Business Ethics*, 164(2), 346-363.
- Habbash, M. (2021). The role of corporate governance in timely disclosure: Evidence from Saudi Arabia. *Journal of Financial Reporting and Accounting*, 19(2), 293-312.
- Kanoujiya, J., Abraham, R., Rastogi, S., & Bhimavarapu, V. M. (2023). Transparency and disclosure and financial distress of non-financial firms in India under competition: investors' perspective. *Journal of Risk and Financial Management*, 16(4), 217.



- Khelif, H., & Samaha, K. (2021). Audit committee and voluntary disclosure: A meta-analysis. *International Journal of Law and Management*, 63(1), 1-20.
- Li, W., & Qi, A. (2022). State ownership, corporate governance, and financial disclosure in China. *Emerging Markets Review*, 50, 100780.
- Neelam, M., Batani, C. D., & Rao, R. (2014). Corporate governance practices in India—a case study. *management accountant*, 94.
- Ntim, C. G., Soobaroyen, T., & Broad, M. J. (2022). Corporate governance and environmental disclosure in South Africa: A study of the mining sector. *Business Strategy and the Environment*, 31(1), 1-18.
- Ofoegbu, G. N., & Odoemelam, N. (2023). Corporate governance and internet financial reporting in Nigeria. *Journal of Applied Accounting Research*, 24(1), 45-67.
- Omnamasivaya, B. A., & Prasad, M. S. V. (2016). The influence of financial performance on environmental accounting disclosure practices in India: Empirical evidence from BSE. *IUP Journal of Accounting Research & Audit Practices*, 15(3), 16.
- Panchasara, D. B. M., & Bharadia, M. H. S. (2013). Corporate governance disclosure practices and firm performance: evidence from Indian banks. *Paradigm*, 17(1-2), 88-98.
- Raithatha, M., & Bapat, V. (2014). Impact of corporate governance on financial disclosures: Evidence from India. *Corporate Ownership and Control*, 12(1), 874-889.
- Sen, M., Mukherjee, K., & Pattanayak, J. K. (2011). Corporate environmental disclosure practices in India. *Journal of Applied Accounting Research*, 12(2), 139-156.
- Yasser, Q. R., & Al Mamun, A. (2023). Corporate governance reforms and financial disclosure quality: Evidence from Pakistan. *Asian Review of Accounting*, 31(2), 123-145.

**EVALUATING THE EFFECTIVENESS OF THE EDUCATION SYSTEM IN PRODUCING
COMPETENT AUDITORS**

By

CA Devarsh Gandhi

Assistant Professor

Faculty of Commerce, GLS University, Ahmedabad

Abstract

In recent years, financial frauds have surged, significantly impacting the general public. Auditors are often blamed for these fraudulent activities, with critics arguing that inadequate audit quality and investigation contribute to the problem. However, according to ICAI Standards on Auditing, the primary objective of an audit is to express an opinion on the truth and fairness of financial statements, thus in this case the responsibility for fraud detection and prevention primarily lies with internal auditors. This study examines the effectiveness of the education system in producing competent auditors. Data was collected from 136 undergraduate and postgraduate commerce students to assess their preparedness for auditing roles. The findings highlight the need for colleges and universities to revise their curricula by incorporating practical audit training sessions. Enhancing hands-on learning experiences will equip students with the necessary skills and exposure to meet industry demands effectively.

Keywords: Fraud, Audit, Students, Education**Introduction:**

Financial fraud has for long been categorized as a menace that led to the collapse of many reputable institutions in the world. For instance, the high-profile fraud cases such as Enron, Bernie Madoff scandals, WorldCom, Lehman Brothers, Tyco International Ltd, and Adelphia Communications Corporation in the USA, Parmalat crisis in Italy and HIH Insurance Ltd in Australia. These cases revealed wide fraud and failures that caused a loss of huge amount of investments by investors (Jones, 2011; Kennedy, 2012). An effective audit play critical roles of investor protection (Newman, Patterson, and Smith, 2005). Auditing increases value added by provision professional assurance on an accuracy and reliability of financial information (Watt and Zimmerman, 1983), and stakeholders can rely on audited financial statements and utilizes them in business decision making. (Hopwood, Mckeown and Mutchler, 1989).

Once a “King of Good times” Vijay Mallya in the year 2016, is accused of fraud and money laundering and was alleged to owe to different banks over Rs. 9000/- crores. Be it a ‘Coalgate Scam’ of Rs. 1.86 lakh crores in 2012 or 2G Spectrum Scam of Rs. 1.76 lakh crores in 2008 that has been declared as “unconstitutional and arbitrary” by the Supreme Court. Diamonds are a man or woman’s best friend, but diamondaires like Nirav Modi are not. One of the most controversial scams worth Rs. 11,400 Crores, this fraud reportedly took place through Punjab National bank’s Brady house branch, Mumbai. In 2018, PNB filed a complaint with the CBI accusing Nirav Modi and his nearby and two bank officials, of committing the offence of cheating and wrongful loss (by obtaining Letters of Undertaking (LoUs) from PNB without paying up the margin amount against loans i.e. if those companies failed to pay the loan, PNB would have had to pay the amount).

According to the RBI Annual report released on 25th August, 2020;

The total Cases of Frauds (involving Rs. 1 Lacs and above) reported by banks and Financial Institutions increased by 28% by volume and 159% by value during 2019-20. Majority of frauds are in loan portfolios of banks where the public sector banks accounted for 80% of these frauds. RBI stated in



its report that due to Weak implementation of Early Warning Signals (EWS) by banks, non-detection of EWS during internal audits, non-cooperation of borrowers during forensic audits, inconclusive audit reports and lack of decision making in Joint lenders' meeting account for delay in detection of frauds. The average lag in detection of fraud remains long.

In most of the above cases, regulators, stakeholders and society believes auditors to be responsible for preventing and detecting fraud, however as per Standards of Auditing and general scope of auditors, their responsibility is to provide an opinion on fairness of financial statement of company or entity. Thus, auditors are not directly responsible for detecting every kind of fraud in a company or entity. But on the other hand, nowadays, a concept of professional skepticism is also gaining pace and expecting auditors to keep a sceptical behaviour while conducting audit. Considering the limitations of external auditors, the concept of Internal Auditor (may or may not be a CA/CWA as per Companies Act, 2013) came into picture. Institute of Chartered Accountants of India (hereafter ICAI) educates, conducts workshops, seminars, trainings for external auditors but then the question arises for the Internal auditors' knowledge, experience and efficiency? Whether, they are well-equipped to prevent and detect frauds or error? Are our education system is imparting the much needed knowledge, skills or techniques to its accounting students to prevent or detect frauds or error at primary or advanced level.

Research Objective

This study aims to evaluate the effectiveness of university-level teaching in the field of commerce in equipping graduate and postgraduate students with the necessary auditing knowledge and skills.

Literature Review

This section deals with past studies that help in preparing the objective of current study. The extract is reproduced hereinafter.

This was necessitated by the continued prevalence of fraud cases in government and private offices despite established mechanism for fraud detection and deterrence. The study used random sampling procedure to select 90 CFEs out of 150 CFEs who were ready to participate in this research. The study is anchored on social learning theory and self control theory. The study findings revealed that CFEs had an optimistic and positive perception that the CFEs believed that the indicators of lifestyle and behaviour change can be used successfully for fraud identification in all the industries and occupations explored in the study. The study concluded that there is a need for further study on emerging trends of behavioural and lifestyle changes related to fraud commission. It also recommended that CFEs be proactive in monitoring and surveillance of suspect employees for tips on fraud". (Dennis M. Gichobi, 2014)

One of the studies was focused on the relationship between classroom audits, student feedbacks and students' throughput. This study used a mixed method for data collection. This research positions itself into two paradigms between the adherents' quantitative approach 'QUAN' and qualitative approach 'QUAL'. The population for lecturers who were teaching AAT at Botho University during the time of the research was 23. A quantitative content analysis was followed with a focus group. The researcher used a convenient sampling to select 12 lecturers to participate in the focus group. Face-to-face interviews were conducted on 6 lecturers who were conveniently selected from the 12 participants who were part of the focus group. There were comparisons between quantitative content analysis, focus group and face-to-face interviews in order to determine the truth from the participants. The results of this study revealed that there was no relationship between the classroom audits, student feedback and students throughput. Additional instruments methods were recommended to evaluate lecturers'



performance. The findings from this research may assist Botho University and other universities world-wide. (Machera,2017)

One of the study on what the Standard Setters and external auditors are doing for financial reporting frauds where in response to these concerns, auditing standards setters have issued fraud standards that have expanded what is required of the external auditors in relation to fraud detection. However, regardless of these efforts, academic research studies indicate that more efforts are still needed from audit regulators and external auditors. The current paper provides insights into two areas. Firstly, it explores the reasons behind the audit expectation gap, and secondly, it assesses the efforts of standards' setters and external auditors to narrow the gap in relation to fraud detection. The paper provides a set of recommendations to regulators and external auditors in an effort to fight fraud. (Rasha Kassem,2012)

Another study was focused on the certification of professionals who were dedicated to preventing and detecting fraud. The work that CFEs perform, their training, and their been documented. This paper provides survey results from 725 CFEs regarding their training, job experiences, and curriculum recommendations. In particular, we provide data on why professionals become CFEs and describe the typical educational background and employment history of CFEs. We also document CFEs' recommended career path and the types of frauds CFEs work on including both the number and magnitude of the frauds. Finally, we document the skills and knowledge that CFEs believe are most important for preventing and detecting fraud and which skills and knowledge bases CFEs believe are deficient among financial statement auditors. (Rayman D. Meservy, 2006)

Research Methodology

Research Design

This study employs a **quantitative research approach** to examine the effectiveness of the education system in preparing competent auditors capable of preventing and detecting financial frauds. A **survey-based research design** was adopted to gather data from students at the graduate and postgraduate levels in the field of commerce.

Population and Sample

The target population for this study consists of **commerce students pursuing graduate and postgraduate degrees**. A sample of **136 students** was selected through **convenience sampling**, as participants were approached via online platforms such as **WhatsApp and email**.

Data Collection Method

A **structured questionnaire** was used as the primary tool for data collection. The questionnaire was designed to align with the study's objectives and was systematically divided into two sections:

Part 1: General Information

including:

- Name
- Age
- Gender
- Educational Program (Graduate/Postgraduate)
- Experience (if any)



Part2: Auditing Knowledge and Skills

The education system's effectiveness, and their preparedness to detect and prevent financial frauds.

The questionnaire was disseminated via **WhatsApp and email**, ensuring a broad reach and easy accessibility for participants.

Variables of the Study

Using the following variables:

- **Dependent Variable:**
 - Auditing skills and effectiveness in detecting and preventing financial frauds among students.
- **Independent Variables:**
 - Syllabus content
 - Education pattern (teaching methodologies, curriculum design, and practical exposure)

Data Analysis

The collected data was analyzed using **statistical methods** to determine the effectiveness of the education system in developing students' auditing skills. Descriptive analysis was used to summarize demographic information, while inferential statistics (such as correlation) were employed to examine the impact of education patterns on students' auditing competencies.

Results and Discussion

Total of 136 responses were received. Respondents consisted of 80 boys and 56 girls respondents. 90 respondents are from Bachelor course and 46 respondents are from Master Degree.

Year\Level	Under-graduate	Post-Graduate
First Year	30	20
Second Year	28	26
Third Year	32	-
TOTAL	90	46

Nearly 35% of respondent have agreed that they have poor knowledge on auditing and assurance. At least, half of the respondents were not aware about the auditing provisions, standards as prescribed by ICAI. As per past researches it is observed that to prevent and detect frauds, auditor must be sceptical in behaviour. But, as per responses obtained in this study, it is observed that around 75% of respondent have agreed that they have no idea about the "Professional Skepticism" in Auditing which is alarming.

Alongwith the theoretical knowledge, to be an efficient auditor, one needs to have practical knowledge which can be gained through practical exposure. Students of Chartered Accountancy, Cost and Works Accountancy or Company Secretary have to undergo articleship/internship as part of their syllabus/curriculum. But, then question arises for graduate or post graduate students. Based on the secondary data, it is observed that universities are not providing auditing articleship/internship as part of syllabus for commerce students. Based on the survey results, it is observed that 72.79% of respondent have NO practical exposure of auditing upto the age of 19-20 years. Thus, it becomes a matter of concern for society, because the students are not getting practical training at graduation or post-graduation level which is crucial for preventing and detecting frauds or errors.



Out of the total respondent, only 11% were not willing to undergo practical auditing training or technique to detect frauds. This shows that students are willing to have such training session at college/institute level. But, Our Colleges/Institutes/Universities are not providing any such trainings or sessions due to poor drafting of syllabus/curriculum. If, students as well as society in combating financial frauds.

A system of education is successful only when the purpose behind it is satisfied and the aim for which it is served to the society, is achieved. The reason behind increase in number of financial frauds in the business world is lack of auditing knowledge on part of the general citizens. The more the knowledge about auditing the lesser would be the inclinations about committing the financial fraud. This knowledge imparting has to be started from a sound is a theoretical subject of the curriculum because of the manner in which our Education system had drafted it. Colleges/Universities had created such an impression among students from the practical view point rather than only a theoretical concept. Studying it only introduced to the students. Auditing has to be implemented with the intention to improve financial health of the society. Only this can reduce the quantum of increasing fraud.

It was further observed from the responses of the respondents that around 65% of students were not aware about the big frauds like SATYAM and PNB. They have responded with “Little bit” of information/Knowledge in the questionnaire when they were asked about such Frauds. We had also analysed the syllabus of Auditing subject of various universities where we observed that students get a chance to learn Auditing subject mostly in Third year i.e. semester 5 and semester 6. Few of the Universities provide Auditing subject in Syllabus for from early stage i.e. may be from First year or second year to help students to gain more knowledge on Auditing which in return will help them in preventing and detecting the financial frauds in future.

A Famous quote “Practice makes Man Perfect” applies here too. Getting more practical training on Auditing at College level will help them to work more efficiently in Real world. History repeats itself. Organising such training session for students from early days may help them in future, if they face the same situation which they had already faced during college days.

Limitations and Recommendation for Future Research

This study has encountered several problems. Firstly, the questionnaire was sent to students via mail or WhatsApp due to time constraint and limited resources. This may affect the accuracy of data collected as the questionnaire might not be filled by intended respondents (Hair et. al., 2016). Students may tend to fill the questionnaires quickly without reading and observing questions properly which may give rise to deviation in the conclusions drawn.

The sample of 136 respondents is relatively small to represent the number of students and their opinions. Due to this, the results drawn may not be accurate to represent the whole population of students.

Future researchers may deliver the questionnaire to all the respondents by himself/herself to ensure that it is filled up accurately and properly. Here, we had only one open ended question which was regarding the reasons for Fraud according to the respondents where there were diverse views of the respondents, but few of them shared that due to lack of Auditing, Poor knowledge, Greed for money were reasons for financial fraud. Hence, future researchers are encouraged to include more open-ended questions to get more clarity and which can provide greater richness to data (Zikmund et. al. 2010).

Finally, the sample size can be increased considerably to get more accurate data and proper representation of population. Future researchers may also prepare a questionnaire for academicians.



The perception of academicians regarding the auditing syllabus, practical trainings, sessions, etc. can be observed by the future researchers.

References

- Arezoo Aghaei Chadegani, Z.M. (2015). The Influence of Individual Characteristics on Auditors' Intention to Report Errors. *Journal of Economics, Business and Management*, 3(7), 710-714.
- Dennis M. Gichobi, D. A. (2014). An Evaluation of Certified Fraud Examiners' Perceptions of Behaviour and Lifestyle Change as Fraud Indicators. *Research on Humanities and Social Sciences*, 4 (17), 17-26.
- Hussin, S. A. (2017). PROFESSIONAL SKEPTICISM AND AUDITORS' ASSESSMENT OF MISSTATEMENT RISKS: THE MODERATING EFFECT OF EXPERIENCE AND TIME BUDGET PRESSURE. *INTERDISCIPLINARY APPROACH TO ECONOMICS AND SOCIOLOGY*, 10 (4), 225-250.
- Machera, R.P. (2017). The Relevance of Classroom Audits and Student Feedback on Teacher Effectiveness. *Universal Journal of Educational Research*, 5(1), 54-60.



A STUDY ON PERCEPTION OF CLOUD ACCOUNTING AMONG ACCOUNTING PROFESSIONALS OF GUJARAT REGION

By

Aditi Birla

Research Scholar, GLS University, Ahmedabad;

Visiting Professor, H.L. College of Commerce, Ahmedabad, Gujarat

Abstract

In this modern era of technology, business has crossed the national boundaries and entered into international markets where accountings adhere to international accounting. Cloud accounting offers an incredible features, facilities and flexibility across the globe. This research paper has focused on Perception towards Adoption and Non-Adoption of cloud accounting among accounting professionals. The structured questionnaires were sent to 150 professionals out of which 129 had responded. The collected data was analysed and tested using Chi-square test and One sample T test through SPSS. It was found that 74% of Professionals are aware about Cloud accounting but only few had adopted it because of ability to access data anywhere anytime, easy transformation from traditional accounting system, work effectively and productively and all other factors studied are significantly perceives as a benefit for adoption; and others had not yet adopted because of security, privacy and lack of training support and all other factors studied are significantly perceives as a challenge for non adoption ..

Keywords: Cloud Accounting, Accounting Professionals, Awareness, Adoption, Non-adoption

Introduction

It is essential to understand the terminology used in this study with proper context. A cloud accounting software encompasses the term cloud computing technology. Cloud accounting software specifically denotes the software utilized within accounting firms by accounting professionals. Cloud computing technology is a broader term that encompasses related technologies and the historical evolution of cloud-based systems.

The term "Cloud computing" refers to the practice of conducting business operations using shared, off-premises computing systems, in contrast to on-premise software installed on local servers and personal computers Rader (2012).

Cloud Accounting

Importantly, cloud computing provides significant benefits to businesses, including accounting professionals and their clients, compared to traditional methods of preparing financial statements and generating management accounting information. Moreover, cloud accounting software offers different advantages over on-premise solutions given by DeFelice & Leon (2010) such as Lower cost, Quick implementation, Remote access, Low or no maintenance cost and Reduced inhouse IT requirements. Cloud accounting software facilitates online collaboration between accountants and clients (such as business owners). This enables clients to access identical real-time information as their accountants. They can monitor the progress of work directly, gaining insights into business performance without having to rely and wait for emailed reports from the accountant.

Furthermore, certain cloud accounting providers have integrated the ability to automatically import daily bank transactions into the accounting software directly from the business's bank account. This feature reduces the need for accountants to manually insert transactions, particularly when dealing with high volumes of banking activity, results in significant time savings.

This paper explores the level of awareness and examine the perception of Accounting Professionals towards Adopting and Non-Adopting of cloud accounting with various factors.



Literature Review

(Elayanathan, P and Kalainathan, K, 2023) studied the level of awareness, adoption and experience of using cloud accounting among SMEs in Srilanka before and after COVID-19. The data was collected by 37 SMEs and they used T-test, box plot and bar chart to compare the data of before and after the COVID-19. They analysed that there is significant difference between awareness and adoption of cloud accounting before and after COVID-19. It was also found that adoption level is lower than awareness level. It was noticed that SMEs are transforming into cloud accounting technology after COVID-19.

(Saad, Lutfi, Almaiah, Alshira'h, Alshirah, Alqudah, Alkhasawneh, Alsayouf, Alrawad, Abdelmaksoud, 2022) studied the factors using Technological, Organisational, Environmental (TOE) framework to explore the effect of adoption of cloud accounting among Jordanian manufacturing SMEs and also focusing on critical roles of high industrial productivity, competitiveness and performance. They also mentioned the significance of cloud accounting adoption due to COVID-19 pandemic. The data was collected from 156 Jordanian SMEs owners or managers. It was analysed that except one factor Perceived knowledge uncertainty, all other factors relative advantage, security concerns, top management support organizational readiness, competitors' intensity and suppliers computing support were significantly influenced the cloud accounting of Jordanian SMEs manufacturing.

To ensure accounting graduates become proficient with new technology, it is essential to educate them from the onset of their academic journey. According to (Aryanti and Adhariani, 2020), key areas of learning include work ethics, teamwork, time management skills, financial statement analysis, proficiency in Microsoft Office programs, and participation in various extracurricular activities. Additionally, (Alimbudiono, 2024) emphasized the importance of focusing on accounting knowledge to enhance competence and become a qualified public accountant, highlighting attitude as a significant factor.

(Aarthiya and Gupta, 2018) studies the case study of KPMG firm and focuses on the use of cloud-based accounting software in SMEs and the advantages that could contribute significantly to revenue by 2020. They concentrated on comprehending the idea of cloud computing and its function in the field of accounting. For this, they read three KPMG publications on this specific subject. According to this study, cloud accounting provides a dependable and scalable source of data.

(Mishra and Mohanty, 2017) define cloud accounting as internet-based accounting software that functions similarly to application software installed on users' computers but provides services via the internet, allowing access from remote servers. They suggest that cloud-based software poses a challenge for those who are hesitant to adopt it and are not yet prepared to embrace its benefits.

(Ali and Thakur, 2017) emphasized the importance of raising awareness about cloud-based accounting, particularly among chartered accountants who provide internal and external advisory services related to an organization's accounting system. Their research found that many chartered accountants are not willing to adopt cloud accounting due to concerns over data security and the additional costs involved in migrating from traditional accounting methods. Yoo and Kim (2018) identified key factors influencing cloud computing adoption, including task characteristics, technology characteristics, organizational factors, and environmental factors, as well as their impacts and interrelationships.

(Attolini and Thompson, 2014) conducted interviews with global leaders in accounting practices, offering valuable insights relevant to this study. Their research includes a comparative perspective with a focus on the South African context. They interviewed members of the Small and Medium Practices



Committee of the International Federation of Accountants, who shared their perspectives on the impact of technology on accounting practice. A significant point highlighted was how accounting firms perceive the rapid advancement of new technologies, whether as threats or opportunities. Among the five committee members interviewed, two saw it as both a threat and an opportunity, while the remaining three viewed it primarily as an opportunity. This study aims to shed light on these parameters in the local context of Cape Town.

According to (Fershtman and Gandal ,2012) cloud computing is categorized into three primary types: Infrastructure as a Service (IaaS), which includes data storage; Software as a Service (SaaS), encompassing application software; and Platform as a Service (PaaS), involves infrastructure provision. Various vendors offer clients access to one or more of these service types. Specifically, suppliers of cloud accounting software provide their applications as Software as a Service (SaaS).

Research Gap

After an in-depth study in the field related to cloud accounting it was found that no concrete research work related to cloud-based accounting was done in India and particularly in context to accounting professionals. This research gap motivated us to work on our set of objectives.

Research Objective

1. To explore the level of awareness of cloud accounting among the accounting professionals of Gujarat region.
2. To study the reason of Adoption and Non-Adoption of Cloud Accounting.

Research Methodology

- Type of Research: Exploratory Research as reasons for adopting and not adopting of cloud accounting were explored.
- Data Collection: Data was collected through Questionnaires using Convenient Sampling.
- Sample Size: Questionnaires were sent to 150 Accounting Professionals but received only 129 responses.
- Sampling Frame: Accounting Professionals of Gujarat state.
- Test: Chi square test and T test using SPSS.

Data Analysis and Interpretation:

- **Demographic Profile of Respondents:**

Table 1: Demographic Data

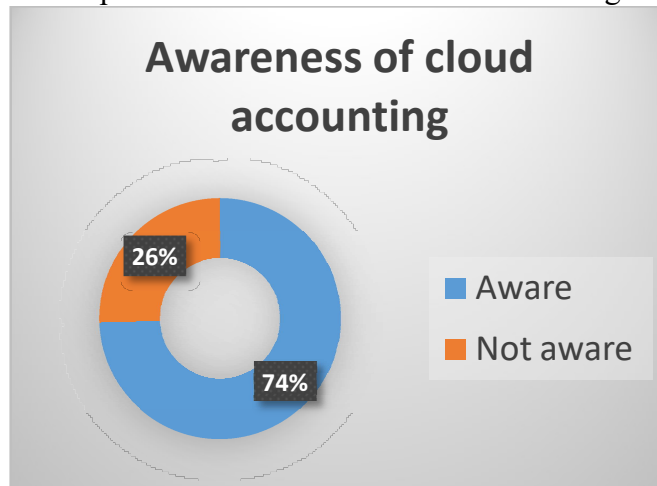
		Frequency	Percentage
Gender	Male	88	68.22%
	Female	41	31.78%
	Total	129	
Age	25 to 35 years	32	24.81%
	36 to 45 years	58	44.96%
	46 to 55 years	33	25.58%
	56 years or above	6	4.65%
	Total	129	
Experience	0 to 5 years	28	21.70%
	6 to 10 years	39	30.23%
	11 to 15 years	33	25.58%
	16 years or more	29	22.48%
	Total	129	

Source: Own Computation



From the above table, out of 129 total respondents around 68% are males and only 32% are females. Around 45% of respondents are from the age group of 36 to 45 years. Majority of respondents have experience of 6 to 10 years.

Graph 1: Awareness about cloud accounting.



From the above graph, it was found that 74% of accounting professionals are aware about cloud accounting; whereas only 26 % are not aware about cloud accounting.

Cloud Accounting Awareness and Adoption of Cloud Accounting: This section explains the awareness of cloud accounting relation with using cloud accounting. To check the association between awareness of cloud accounting and using cloud accounting, the following null hypothesis is developed: H0: There is no association between Awareness of cloud accounting and adopting Cloud accounting by Accounting Professionals.

Table 2: Association between Awareness of cloud accounting and Adopting cloud accounting by Professionals.

Awareness	Using		Total
	Yes	No	
Yes	36	60	96
No	0	33	33
Total	36	93	129
Calculated value of Chi-Square 17.165, Significance value is .000			

Source: Own Computation

From the above table, it was observed that 36 professionals who are aware about cloud accounting, also adopts cloud accounting, still there are 60 professionals who are aware about cloud accounting but not adopted cloud accounting. And there are 33 professionals who are not aware and also not adopted cloud accounting.

Table 2 determines the significant value of Pearson Chi Square as 0.000, which is less than the acceptable significance level of 0.05, then Null Hypothesis is rejected. Thus, there is association between Awareness of cloud accounting and Adopting Cloud Accounting.



Result: It was found that majority of accounting professionals are aware about cloud accounting which means that they are adaptable to changes in new technology and many of them are even trying to move towards the new technology. There are very few Accounting Professionals who are concerned about the technological changes in accounting field.

Perception towards Adoption of Cloud Accounting by Accounting Professionals

This section explains the perception of Adopting cloud accounting by Accounting Professionals. We had collected data of 129 responses out of which only 36 Professionals has adopted cloud accounting so we had considered the perception of those 36 respondents only to check the significance of sample and population. To check the significance of perception of Adopting Cloud accounting of sample drawn from unknown population, the following null hypothesis was developed:

H0: There is no significant perception towards Adoption of cloud accounting.

To check the significance of developed hypothesis One sample t test was conducted. The one-sample t-test is used when we want to know whether our sample comes from a particular population but we do not have full population information available to us.

Table 3: One Sample T test for factors of adopting cloud accounting

	Test Value = 0			
	t	df	Sig. (2-tailed)	Mean Difference
1. Ease of transforming	36.551	40	.000	4.317
2 Efficiency and Productivity of work	34.618	40	.000	4.171
3 Ability to access financial data from anywhere anytime	28.043	40	.000	4.244
4 Ability to connect with clients	20.884	40	.000	3.805
5. Customization options	15.593	40	.000	3.268
6. Accurate audit evidence	33.040	40	.000	4.195
7. Reliable financial data	22.576	40	.000	3.878
8. Less capital expenditure	15.926	40	.000	3.220
9. Automation system	18.027	40	.000	3.610
10. Learning and operating are easy	23.880	40	.000	3.732
11. Career advancement and professional growth	25.331	40	.000	3.951
12. Aligned with professional goals and aspirants	23.595	40	.000	3.756
13. Foster innovation and creativity	18.993	40	.000	3.707

Source: SPSS and Own Computation

From the above table, p-value (sign. 2 tailed.) are 0.000, which shows that p- value is less than the significance level of 0.05 for all the 13 factors. Thus, Null Hypothesis is being rejected for all the factors

The mean difference for all the factors is positive which indicates that perception of accounting professionals with all the above 13 factors are significant for Adoption of Cloud Accounting.

Result: Accounting Professionals significantly perceive all these factors as benefits of adopting cloud accounting.



Perception towards Non- Adoption of Cloud Accounting by Accounting Professionals

This section explains the perception of non-adoption of cloud accounting by accounting professionals. We had collected 129 responses out of which 93 Professionals has not adopted cloud accounting so we had considered the perception of those 93 respondents only to check the significance of sample and population. To check the significance of perception of Non-Adoption of Cloud accounting of sample drawn from unknown population, the following null hypothesis was developed:

H0: There is no significant perception towards non-adoption of cloud accounting.

To check the significance of developed hypothesis one sample t test was conducted.

Table 4: One Sample T test for factors of not adopting cloud accounting

	Test Value = 0			
	t	df	Sig. (2-tailed)	Mean Difference
1. Difficult in shifting	27.743	87	.000	3.602
2. Lack of awareness	42.064	87	.000	4.125
3. Lack of control and security	27.245	87	.000	3.466
4. Lack of adequate training and support available	36.094	87	.000	4.057
5. Dependency on internet connectivity which hinders data Loss	31.173	87	.000	3.727
6. Complexity in integrating existing system	29.171	87	.000	3.693
7. Perceived risk of data breaches	33.988	87	.000	3.841
8. Expensive	28.884	87	.000	3.602
9. Employees are not qualified	34.801	87	.000	3.864
10 Scarcity of funds	25.980	87	.000	3.432
11. Lack of technological resources	25.581	87	.000	3.364

Source: SPSS and Own Computed

From the above table, p-value (sign. 2 tailed.) are 0.000, which shows that p- value is less than the significance level of 0.05 for all the 11 factors. Thus, Null Hypothesis is being rejected for all the factors.

The mean difference for all the factors is positive which indicates that perception of accounting professionals with all the above 11 factors are significant for Non -Adoption of Cloud Accounting.

Result: Accounting Professionals significantly perceive these factors as barriers or challenges for non-adoption cloud accounting.

Conclusion

The objective of the study was to analyze the level of awareness and also studied the reasons for adoption and non-adoption of cloud accounting among the accounting professionals. We found it



appropriate to study the awareness and adoption level of accounting professionals as they serve the primary source for both internal and external advice to various organizations regarding cloud accounting technology. For this research, we studied the perception of 129 accounting professionals. We found that majority of the professionals are aware about the concepts of cloud accounting. Whereas very few professionals are not aware about the cloud accounting. When we studied in detail, it was found that majority of professionals has not adopted cloud accounting because of lack of awareness, lack of adequate training and support available to them, those who are aware about the system and willing to use but due to lack of training and support available they have not yet adopted. It was also found that employees are not enough qualified to adopt the technology and Perceived risk of data breaches as data is stored and access through online.

The study also found that the few professionals has adopted cloud accounting because of easy transformation from traditional accounting and even maintaining accounts on cloud software is easy to access. Even respondents felt that using cloud accounting gives access to financial data anytime anywhere and which has increased the efficiency and productivity of work with less workload and number of tasks.

Scope for Further Research

The present study can be extended and explored with other different group of industry and peoples. The further research can also demonstrate with other more parameters and insights; it can also be expanded to other different specific states and city.

References

- Alimbudiono, R. S. (2022). Accounting knowledge as a contributing intention on improving public accounting profession. *Journal of Asian Finance, Economics and Business*, 7(9), 801-809.
- Ali, Y., & Thakur, U. (2017). Awareness and adoption of cloud-based accounting by qualified chartered accountants in Udaipur district of Rajasthan: An empirical study. *Indian Journal of Accounting*, 49(2), 77-82.
- Arianni, C., & Asharani, D. (2020). Students' perceptions and expectation gap on the skills and knowledge of accounting graduates. *The Journal of Asian Finance, Economics and Business*, 7(9), 649-657.
- Antolini, G., & Thompson, P. (2014). The evolution of an accounting practice: The impact of technology. *IFAC Practice Management*, Available from: <https://www.face.org/globalknowledge-gateway/practice-management/discussion/evolution-accounting-practice-impact> [Accessed 27 March 2017].
- DeFelice, A. and Leon, J.F. 2010. Cloud Computing. *Journal of Accountancy*, 210(4):50-55.
- Elayanathan, P. a. (2022). Awareness and Adoption of Cloud Accounting in small and Medium Enterprises in Sri Lana: A Comparative Analysis of Before and After Covid-19 Panademic. *International Journal of Accounting and Business Finance*, 7(Special Issue), 31-42. doi:10.4038/ijabf.v7i0.107
- Fershtman, C., & Gandal, N. (2012). Migration to the cloud ecosystem: Ushering in a new generation of platform competition. *Communications & Strategies*, (85), 109-123.
- Lipika Aarthiya, A. G. (2018, December). Cloud Computing in Accounting: A case study of Firm. *Indian Journal of Accounting*, 50(2), 116-124.
- Mohanty, A., & Mishra, A. M. (2017). Benefits and issues of cloud computing in accounting. *International Journal of Trend in Scientific Research and Development*, 1(6), 283-288.
- Rader, D. (2012). How cloud computing maximizes growth opportunities for a firm challenging established rivals. *Strategy & Leadership*, 40(3), 36-43.



- Saad, M., Lutfi, A., Almaiah, M., Alshira'h, A., Alshirah, M., Alqudah, H., . . . Abdelmaksoud, O. (2022). Assessing the Intention to Adopt Cloud Accounting during COVID-19. *Electronics*, 11 (24). doi: <https://doi.org/10.3390/electronics11244092> .
- Yoo, S. K., & Kim, B. Y. (2019). The effective factors of cloud computing adoption success in organization. *The Journal of Asian Finance, Economics and Business*, 6(1), 217-229.
www.netsuite.com



THE ROLE OF CLOUD COMPUTING IN DIGITAL ACCOUNTING TRANSFORMATION

By

Ms. Neelam Saroj

Assistant Professor

Silver Oak Commerce College, Ahmedabad, Gujarat, India.

Abstract

Cloud computing has emerged as a game-changer in the field of digital accounting, offering businesses a secure, scalable, and efficient solution to manage their financial data. The integration of cloud computing in digital accounting systems has revolutionized the way financial transactions are recorded, analysed, and reported. Cloud-based accounting systems provide real-time access to financial information from any location, enabling businesses to streamline their accounting processes, enhance collaboration, and reduce operational costs. These systems offer automatic updates, secure data backups, and easy integration with other business applications, promoting efficiency and accuracy in financial management. Additionally, cloud computing in accounting enables enhanced data security, with encryption and multi-factor authentication, which protects sensitive financial information. The transformation brought about by cloud technology allows businesses, from small startups to large enterprises, to focus on strategic decision-making while leaving the complexities of data management to cloud service providers. The role of cloud computing in digital accounting continues to evolve, shaping the future of financial services with advanced tools, insights, and scalability that were previously unattainable with traditional accounting systems.

Keywords: Cloud Computing, Digital Accounting, Financial Data, Real-Time Access, Data Security, Automation, Collaboration, Efficiency, Cloud-Based Accounting Systems, Financial Management.

Introduction:

Cloud computing has become a pivotal technology in the digital transformation of various sectors, and the field of accounting is no exception. In digital accounting, the traditional methods of managing financial data and transactions are being replaced by cloud-based solutions that offer scalability, efficiency, and enhanced accessibility. Cloud computing enables accounting professionals to store, manage, and process financial information over the internet, rather than relying on local servers or desktop software. This shift allows businesses of all sizes to automate their accounting tasks, streamline financial processes, and improve decision-making through real-time data insights. The integration of cloud computing into accounting not only improves data management but also enhances collaboration, security, and compliance.

The growing adoption of cloud technology in accounting aligns with the increasing demand for automation, data accuracy, and the need for remote access. In this context, cloud computing is transforming digital accounting by offering innovative tools that facilitate financial analysis, reporting, budgeting, and auditing with greater flexibility and efficiency. As more businesses transition to cloud-based accounting systems, the role of cloud computing in digital accounting transformation continues to evolve, offering new possibilities for improving the practice and business outcomes.

Literature Review

Benefits of Cloud Computing in Digital Accounting:

- a) **Efficiency and Accuracy:** Cloud computing enhances efficiency by automating tasks and reducing manual errors. Smith & White (2020) report that businesses adopting cloud-based solutions saw a 30% reduction in errors, improving financial reporting accuracy by automating data entry and calculations, ensuring up-to-date information for decision-making.



- b) **Real-time Insights:** Cloud systems offer real-time financial insights, crucial for informed decision-making and collaboration among stakeholders. As Jones et al. (2021) highlight, these systems allow businesses to access financial data simultaneously, fostering agility in financial management.
- c) **Security:** Cloud accounting utilizes encryption, multi-factor authentication, and ISO 27001 standards to ensure data protection. Brown & Green (2019) emphasize that these measures reduce cybersecurity risks and provide secure backups, safeguarding sensitive financial data.

Adoption Challenges of Cloud-Based Accounting

- a) **Data Security and Privacy:** Despite cloud computing's security features, concerns about data breaches persist. Patel & Verma (2021) reveal that 63% of businesses worry about the risks of storing sensitive financial data in the cloud, although encryption and security technologies mitigate these risks.
- b) **Integration Issues:** Integrating cloud accounting with existing ERP systems is challenging. Brown & Taylor (2020) note that 42% of businesses face difficulties in this area, leading to data synchronization issues. Proper assessment of cloud solutions and compatibility is vital for smooth integration.
- c) **Implementation Costs:** Initial migration and training costs can be high, particularly for small businesses. Gupta & Sharma (2022) suggest that these costs may be prohibitive, but long-term savings and efficiency improvements often justify the investment.

AI and Automation in Cloud Accounting:

- a) **Automation:** AI-driven cloud accounting automates financial tasks, reducing errors and improving efficiency. Kumar & Rao (2022) note that this automation enhances bookkeeping, invoice processing, and financial analysis, enabling accountants to focus on higher-value tasks.
- b) **Fraud Detection:** AI improves fraud detection by identifying irregular financial patterns. Kumar & Rao (2022) explain that AI systems analyse large datasets to flag anomalies, enhancing compliance and reducing the risk of financial mismanagement.
- c) **Efficiency Gains:** AI-powered cloud accounting increases financial efficiency by 25% and enhances fraud detection accuracy. Kumar & Rao (2022) highlight how automation and real-time insights significantly improve financial management.

Cloud computing in digital accounting offers significant benefits, including increased efficiency, real-time insights, and security. However, challenges like data security, integration issues, and implementation costs remain. AI's integration further enhances cloud accounting by automating tasks, detecting fraud, and improving efficiency.

Objectives

1. To examine the impact of cloud computing on digital accounting – Analysing how cloud technology enhances efficiency, accuracy, and accessibility in accounting processes.
2. To explore the advantages and challenges of cloud-based accounting systems – Evaluating benefits like real-time data access, cost-effectiveness, and security concerns.
3. To assess the role of cloud computing in financial decision-making – Investigating how real-time financial data supports better decision-making and strategic planning.
4. To analyse the security and compliance aspects of cloud accounting – Identifying data privacy, regulatory compliance, and cybersecurity risks associated with cloud-based accounting.
5. To study the adoption and implementation trends of cloud computing in accounting firms – Understanding how businesses transition from traditional to cloud-based accounting solutions.
6. To evaluate the future prospects of cloud technology in digital accounting transformation – Predicting trends, innovations, and the potential evolution of cloud-based accounting.



Research Methodology

This study employs a secondary data research methodology, focusing on existing literature, reports, case studies, and industry surveys to analyse the role of cloud computing in digital accounting transformation. The data is collected from various academic journals, industry reports, white papers, and online databases, primarily focusing on articles published between 2019 and 2023. The methodology involves:

- **Literature Review:** A detailed review of scholarly articles, industry publications, and market reports related to cloud-based accounting systems, focusing on benefits, challenges, and the integration of AI.
- **Data Collection:** Secondary data from existing research papers, surveys, and case studies was analysed to identify trends and patterns in cloud computing adoption within the accounting sector.
- **Data Analysis:** Qualitative and quantitative data were extracted and analysed to highlight the key benefits, adoption barriers, and technological advancements like AI. This data is synthesized to draw conclusions about the overall impact of cloud computing on digital accounting.
- **Comparative Analysis:** The results from various studies were compared to assess the consistency of findings regarding the efficiency improvements, security concerns, and challenges faced by organizations adopting cloud-based accounting systems.

Results

The analysis of secondary data from various sources yielded the following results:

- **Benefits of Cloud Computing:**
 - a) **Reduction in Errors:** Firms that adopted cloud-based accounting systems reported a 30% reduction in accounting errors (Smith & White, 2020).
 - b) **Real-time Financial Insights:** Cloud accounting enabled organizations to achieve faster decision-making and improved financial collaboration (Jones et al., 2021).
 - c) **Enhanced Security:** The use of encryption and multi-factor authentication through cloud services helped companies mitigate cybersecurity risks, with most cloud providers adhering to ISO 27001 security standards (Brown & Green, 2019).
- **Adoption Challenges:**
 - a) **Data Security Concerns:** Secondary data revealed that 63% of firms expressed concerns over storing sensitive financial data in the cloud due to potential data breaches (Patel & Verma, 2021).
 - b) **Integration Issues:** Many businesses, about 42%, faced difficulties in integrating cloud accounting systems with their existing legacy ERP systems (Brown & Taylor, 2020).
 - c) **High Initial Costs:** Initial migration and training costs were noted as significant barriers for small businesses, which find it expensive to transition to cloud accounting (Gupta & Sharma, 2022).
- **AI and Automation Impact:**
 - a) **Automation:** AI-driven automation has significantly improved accounting processes, with businesses reporting higher efficiency in bookkeeping and invoice processing (Kumar & Rao, 2022).
 - b) **Fraud Detection:** Companies utilizing AI-powered cloud systems observed a 25% improvement in fraud detection accuracy and financial risk management (Kumar & Rao, 2022).
 - c) **Predictive Analytics:** AI integration allowed businesses to forecast revenue and manage cash flow with increased precision.



Discussion

- **Efficiency Gains and Cost Savings:**

The research indicates that cloud computing significantly enhances the efficiency of accounting processes, with firms reporting up to a 30% reduction in errors and improvements in financial reporting accuracy (Smith & White, 2020). By automating manual tasks, businesses can allocate resources more effectively, leading to overall cost savings. However, initial implementation and migration costs can still pose a barrier, particularly for smaller organizations (Gupta & Sharma, 2022).

- **Real-time Data and Decision-making:**

One of the most significant advantages highlighted is the real-time financial insights enabled by cloud-based accounting systems (Jones et al., 2021). This feature allows businesses to make informed decisions quickly, improving financial management and strategy. The ability for stakeholders to access up-to-date data also enhances collaboration, streamlining business operations.

- **Security and Privacy Concerns:**

Despite the numerous benefits, concerns regarding data security and privacy remain critical. A significant proportion of firms (63%) worry about potential data breaches when storing sensitive financial information in the cloud (Patel & Verma, 2021). However, advancements in cloud security, including encryption and multi-factor authentication, have been shown to mitigate some of these risks, though complete security assurance remains a challenge (Brown & Green, 2019).

- **Integration Challenges with Legacy Systems:**

The research points to a common issue faced by businesses transitioning to cloud-based accounting: integration with existing ERP systems. According to Brown & Taylor (2020), 42% of businesses struggle with compatibility, which can hinder the adoption process. Effective planning and strategy are needed to address integration complexities, ensuring smooth implementation.

- **AI's Role in Enhancing Automation and Fraud Detection:**

AI-driven capabilities, including automated bookkeeping, predictive financial analytics, and fraud detection mechanisms, have demonstrated a 25% improvement in financial efficiency (Kumar & Rao, 2022). These technologies offer substantial benefits by reducing human intervention, minimizing errors, and enhancing compliance. However, the integration of AI requires skilled personnel and technical infrastructure, which could be an additional cost burden for smaller firms.

Conclusion

In conclusion, the adoption of cloud computing in digital accounting presents substantial advantages, including reduced errors, improved efficiency, and real-time decision-making. The integration of AI-driven automation further enhances these benefits, driving significant improvements in financial processes and fraud detection. However, challenges such as data security concerns, integration with legacy systems, and initial migration costs must be carefully managed for successful implementation. Despite these hurdles, cloud accounting represents the future of accounting practices, offering businesses a competitive edge in terms of flexibility, scalability, and financial management. Future research should focus on finding solutions to these challenges and assessing the long-term effects of AI integration in cloud accounting systems.

References

- Brown, J., & Green, P. (2019). Security aspects of cloud accounting: A comprehensive review. *Journal of Accounting Technology*, 34(2), 121–134.



- Brown, L., & Taylor, G. (2020). Integration challenges in cloud accounting: Overcoming legacy system barriers. *International Journal of Business Technology*, 18(3), 45–58.
- Gupta, R., & Sharma, S. (2022). Adoption barriers of cloud computing in small businesses: Challenges and solutions. *International Journal of Cloud Computing and Technology*, 11(4), 56–69.
- Jones, T., Taylor, P., & Kumar, R. (2021). The role of real-time insights in cloud accounting. *International Journal of Financial Management*, 29(1), 45–59.
- Kumar, R., & Rao, A. (2022). AI in cloud accounting: Automating processes and enhancing fraud detection. *Journal of Digital Finance*, 15(3), 213–228.
- Patel, V., & Verma, M. (2021). Cybersecurity and data privacy issues in cloud-based accounting systems. *Journal of Information Security and Technology*, 42(5), 330–345.
- Smith, A., & White, M. (2020). The efficiency benefits of cloud accounting in financial reporting. *Journal of Accounting Innovations*, 28(6), 89–102.



THE RISE OF CROWDFUNDING: A NEW FINANCIAL PATHWAY IN INDIA'S ECONOMIC LANDSCAPE

By

Mr. Kavita Anjaria

Research Scholar

S. D. School of Commerce, Gujarat University, Ahmedabad – 380009

Abstract

This paper constructs a theoretical framework to explore crowdfunding, its applications, and its impact on start-ups and SMEs. Limited access to funding remains a key challenge for SMEs, as stricter financial regulations and the 2008 global financial crisis reduced credit availability. Crowdfunding has emerged as a viable alternative, allowing entrepreneurs to raise capital from multiple individuals through online platforms. This study examines the evolution of crowdfunding in India, consolidating insights from academic research on its role in SME financing. It further assesses how crowdfunding has facilitated financial support for start-ups and SMEs, addressing gaps left by traditional funding sources. By analysing the growth and effectiveness of crowdfunding, this paper aims to provide valuable insights for researchers and policymakers. Emphasizing the importance of a structured financial approach, it advocates for a balanced integration of conventional and alternative economic systems. Strengthening crowdfunding mechanisms can enhance access to capital, fostering innovation and sustainable growth within India's entrepreneurial ecosystem.

Keywords: Crowdfunding, Equity-based crowdfunding, Start-ups, SMEs, SEBI, Investors

Introduction

In recent years, the landscape of early-stage business financing has undergone a significant transformation due to two key factors. The first was the 2008 financial crisis, which severely impacted investor confidence in large financial institutions such as banks, insurance companies, and trust organizations, particularly those linked to major financial hubs. The second factor is the rise of bottom-up financial initiatives driven by innovative, multi-functional, and multi-sided digital platforms enabled by rapid technological advancements (Salomon, 2018). These trends have fueled the global expansion of crowdfunding platforms, creating a bridge between entrepreneurs, investors, and financial intermediaries. Similarly, SMEs have faced persistent challenges in securing funding to support and grow their ventures. Their small scale and lack of financial history often lead to asymmetrical information issues, making external financing difficult (Giudici & Rossi Lamastra, 2018). Crowdfunding not only offers an alternative financing avenue but also serves as a market-testing tool, providing entrepreneurs with valuable feedback while fostering innovation and business growth.

Crowdfunding holds immense potential as an alternative financing mechanism. In 2015, the global crowdfunding market was valued at \$34.4 billion (Massolution, 2015). By 2025, it is projected to reach \$93 billion in developing countries, with China contributing nearly half of this valuation (World Bank, 2014). The increasing popularity of crowdfunding stems from its accessibility, allowing individuals from diverse locations to contribute small investments. Reward-based and equity-based crowdfunding platforms, in particular, offer a viable funding option for entrepreneurs by easing traditional financial constraints. Statistics from Fundable reveal that fewer than 1% of start-ups secure angel investment, while only 0.05% benefit from venture capital.

This paper aims to examine emerging trends in crowdfunding within India, emphasizing its role in supporting start-ups and SMEs. A key focus is the expansion of equity crowdfunding platforms, an area that remains underexplored in the Indian context. While most research highlights factors influencing crowdfunding success (Capital et al., 2016), limited attention has been given to whether crowdfunding



acts as a complement or substitute for venture capital. Entrepreneurs often rely on crowdfunding as seed capital to launch businesses, particularly when access to conventional funding is restricted (Mollick, 2014). Some studies also analyze the role of information symmetry in crowdfunding and its impact on fundraising outcomes (Hakenes & Schlegel, 2014). Compared to debt financing, crowdfunding has the potential to support a broader range of innovative projects, ultimately fostering social and economic progress.

As an alternative financing tool, crowdfunding provides crucial support when traditional funding sources are inaccessible. It complements venture capital by offering seed-stage funding while facilitating subsequent investment rounds. Crowdfunding also enhances business growth by not only raising financial capital but also enabling crowd-driven marketing and brand-building efforts (Paschen, 2017). Despite its significance, equity crowdfunding remains unregulated in India. To address this gap, SEBI has introduced a consultation paper exploring a potential legal framework for equity crowdfunding. However, regulatory uncertainty limits its growth. Legalizing such platforms would allow investors to participate in a structured and transparent manner, promoting entrepreneurship and economic development.

This article aims to highlight the urgent need for a balanced financial ecosystem that integrates both traditional and alternative funding sources. By drawing attention to crowdfunding regulations and market trends, this study provides valuable insights for policymakers, researchers, investors, and entrepreneurs. The paper is structured as follows: the first section outlines the objectives and research methodology, followed by an overview of crowdfunding, its evolution, and various types in Section 2. Section 3 focuses on equity-based crowdfunding platforms, and the final section presents conclusions and policy implications.

Review of Literature

S.No	Author(s)	Year	Title	Main Findings
1.	Dr.Shreya Virani & Prof.Paramjeet Kaur	2016	Evaluating the role of Crowdfunding as an alternate finance opportunity: a fundraiser's perspective	Crowdfunding is favored over traditional financing methods due to its expression of satisfaction and positively associated encounters.
2.	Othmar M. Lehner & Theresia Harrer	2019	Crowdfunding Revisited: A neo-institutional field perspective	The discoveries highlight how crowdfunding represents an innovative and potentially disruptive alternative to the existing norms, especially for ventures. This is not solely due to its distinct mechanisms but also because of its fundamental value propositions rooted in societal values.
3.	Susana Bernardino and J. Freitas Santos	2020	Crowdfunding: An Exploratory Study on Knowledge, Benefits and Barriers Perceived by Young Potential Entrepreneurs	The findings indicate that young prospective entrepreneurs have a moderate understanding of crowdfunding. While they demonstrate a general grasp of crowdfunding's attributes, such as utilizing online platforms to secure project funds and the involvement of numerous supporters contributing small amounts of money, their overall knowledge



				remains moderate.
4.	Hasnan Baber	2019	Factors Underlying Attitude Formation onwards Crowdfunding in India	A positive inclination towards a product or service is shaped by previous encounters with similar services and the impact of peer groups or references.
5.	Mario D'Ambrosio and Gianfranco Gianfrate	2016	Crowdfunding and Venture Capital: Substitutes or Complements?	Crowdfunding is an alternative to traditional venture capital for initial seed funding, yet it supplements venture capital efforts for subsequent financing rounds.
6.	Regan M. Stevenson, Donald F. Kuratko & Jared Eutsler	2018	Unleashing main street entrepreneurship: Crowdfunding, venture capital, and the democratization of new venture investments	In certain areas, crowdfunding seems to act as a replacement for venture capital, while in different regions, it serves as a supplement or complement.
7.	Ferdinand Thies, Alexander Huber, Carolin Bock, Alexander Benlian, and Sascha Kraus	2018	Following the Crowd— Does Crowdfunding Affect Venture Capitalists' Selection of Entrepreneurial Ventures?	Venture capitalists consider crowdfunding signals as part of their funding decisions to assess the potential of entrepreneurial ventures.
8.	Jeannette Paschen	2017	Choose wisely: Crowdfunding through the stages of the startup life cycle	For startups, crowdfunding can create a valuable foundation for resources within the organization, predominantly by securing funds. Additionally, it brings non-monetary benefits such as knowledge acquisition, the establishment of crowd capital, and marketing support.
9.	Dr. Manoj Kumar Joshi	2018	Crowdfunding For Startups in India	The government should introduce appropriate legislation to regulate the crowdfunding method of raising funds. This action will foster an entrepreneurial spirit among the population.
10.	Dr. G V M Sharma, Dr. Anitha. S. Yadav and Prakruthi. N Udupa.	2019	Crowdfunding In India: An Empirical Study.	The level of awareness regarding crowdfunding in India remains significantly low.

The existing literature primarily focuses on identifying the key factors influencing crowdfunding success. Several studies explore the relationship between crowdfunding and venture capital within financial markets. However, there is a noticeable gap in research examining how crowdfunding helps start-ups and SMEs overcome financial barriers and supports various stages of entrepreneurial development. This study aims to bridge that gap by analyzing the role of crowdfunding in easing financial constraints for emerging businesses.

Furthermore, this research provides an in-depth review of equity crowdfunding in India, offering a comparative analysis with global crowdfunding leaders. It is the first study to comprehensively document the structure of equity crowdfunding platforms in India before SEBI deemed them



unauthorized. Many of these platforms later transitioned into Alternative Investment Funds (AIFs). By shedding light on these developments, this paper contributes to a deeper understanding of the evolving crowdfunding landscape and its regulatory implications.

Objectives

The primary aim of this paper is to assess the growth and progression of crowdfunding, particularly its role in financing start-ups and SMEs in India. Additionally, this study focuses on the following key areas:

- Examining the historical development and emerging trends of crowdfunding in the Indian market.
- Evaluating the level of adoption and utilization of crowdfunding as a financial tool for start-ups and small businesses.

Research Methodology

This study is based on secondary data collected from various sources, including official websites, news articles, and SEBI reports. The research design focuses on examining the trends and evolution of crowdfunding, with particular emphasis on the role of equity crowdfunding in financing start-ups and SMEs. Data has been sourced from crowdfunding platform websites, Statista, and SEBI's consultation paper. The foundation of this research lies in the challenges faced by start-ups and SMEs in securing funding from venture capitalists, angel investors, and financial institutions. Despite meeting complex legal and regulatory requirements, many businesses still struggle to obtain financial support.

Furthermore, with India emerging as a global start-up hub, this study presents a comparative analysis of crowdfunding trends between India and the top four crowdfunding nations from 2017 to 2022. It also provides insights into the equity crowdfunding platforms operating in India, their regulatory framework, associated risks, and details of projects successfully funded through these platforms.

Analysis and Discussion

Understanding Crowdfunding

Crowdfunding is derived from the word's "crowd" and "funding," referring to the practice of raising financial support for projects through a large number of individuals via online platforms. This form of financing is exclusively digital, which limits accessibility for those unfamiliar with technology. The advent of Web 2.0 significantly contributed to the expansion of crowdfunding, with the first platform, ArtistShare, launched in the early 2000s. Subsequently, platforms like PledgeMusic, Sellaband, IndieGoGo, and Kickstarter emerged, further advancing the industry. Crowdfunding involves three key stakeholders: the entrepreneur or project initiator seeking funds, contributors willing to support the venture, and the platform that facilitates communication between both parties. Beyond financial support, crowdfunding also provides entrepreneurs with valuable market feedback, publicity, and engagement from early adopters (Golić, 2014).

Mollick (2014) defines crowdfunding as the process by which individuals or organizations secure funds through small contributions from a large audience via the internet, bypassing conventional financial intermediaries. Similarly, Lehner (2013) describes it as the practice of soliciting small investments from a wide audience to support business ventures. Crowdfunding models are generally classified into two categories: those offering financial returns, such as peer-to-peer lending and equity crowdfunding, and those that do not provide financial returns, such as reward-based and donation-based crowdfunding. The main types of crowdfunding are as follows:

Reward-Based Crowdfunding: Contributors provide funds in exchange for non-monetary rewards, such as products or services. Popular platforms include Kickstarter and IndieGoGo, which



primarily support creative projects in fields like art, technology, music, and publishing (European Commission, 2016).

Donation-Based Crowdfunding: This model supports philanthropic, research, or personal initiatives, where donors contribute without expecting any return. The motivation is purely altruistic, and recipients are not obligated to provide rewards. Platforms such as Ketto, Wishberry, Fuel A Dream, BitGiving, and Crowdera operate under this model (Kuti & Madarász, 2014).

Peer-to-Peer Lending: This form of crowdfunding enables individuals to lend small amounts of money to borrowers through online platforms, eliminating the need for traditional collateral. Lenders choose projects based on their risk assessment, investment amount, and loan duration. Prominent platforms include Faircent, Rang De, Lendbox, and LenDenClub.

Equity-Based Crowdfunding: Investors acquire equity in a company in exchange for their financial contributions, securing a stake in future earnings. This model is particularly beneficial for start-ups and SMEs seeking investment. However, equity crowdfunding is currently not permitted in India. Recognizing the growing need for alternative funding, SEBI introduced a consultation paper in 2014 outlining potential regulations for equity crowdfunding platforms.

The Rise of Crowdfunding in India

India has made significant strides in fostering entrepreneurship, as reflected in the World Bank's Ease of Doing Business report. The country ranked 63rd among 190 nations, marking an improvement of 14 places from 2019. The ranking for "starting a business" has also seen progress, moving up from 136th. Similarly, India's rank in "getting credit" has improved from 42nd to 25th. These advancements are largely attributed to policy reforms, tax incentives, simplified business registration processes, and the emergence of crowdfunding as an alternative financing method.

Although crowdfunding in India is still in its early stages compared to global markets such as the US, UK, and Europe, it has witnessed steady growth. According to Massolution (2015) and the Cambridge Centre for Alternative Finance (2016), the crowdfunding industry expanded by 230% in 2015, with equity crowdfunding accounting for 44% of total market contributions. Interestingly, Dhirubhai Ambani, the founder of Reliance Industries, utilized a form of crowdfunding decades ago in Gujarat to finance his textile venture, long before the term became widely recognized.

The global crowdfunding landscape continues to evolve, with the US leading the market, followed by the UK, France, Germany, and India. One of the key reasons for the dominance of these nations is the legalization of equity crowdfunding, which has enabled start-ups to secure funding more efficiently. By promoting equity crowdfunding platforms, these countries have fostered a more dynamic financial ecosystem that supports entrepreneurial growth.

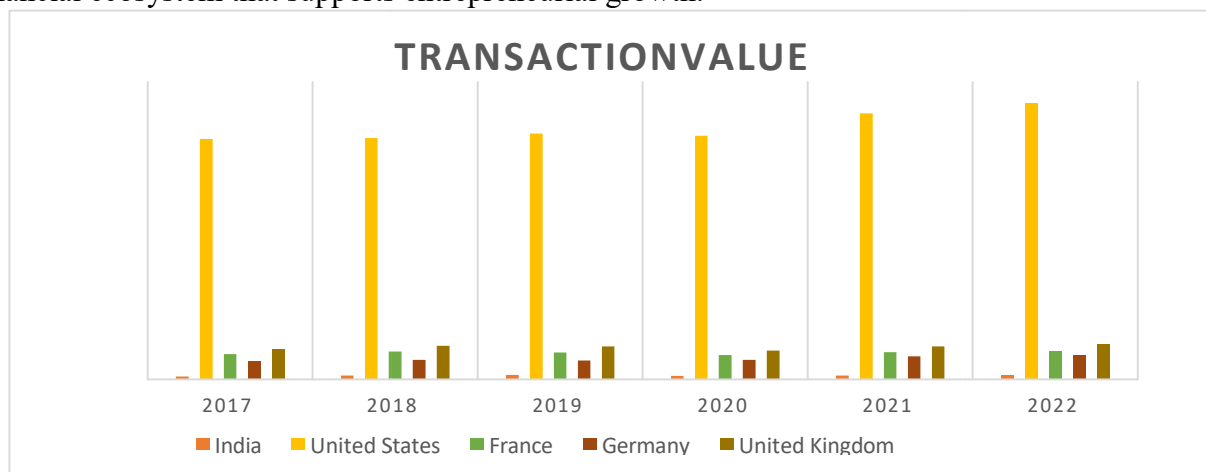


Figure1:Global Comparison with top four Countries

Source:<https://www.statista.com/outlook/335/119/crowdfunding/india>



Crowdfunding as an Alternative Financing Model

For start-ups to transition from inception to maturity, external financial support is essential (Zachary & Mishra, 2013). However, securing such funding is often challenging due to a lack of established credibility and past failures in the entrepreneurial ecosystem. Many investors hesitate to finance new ventures, as statistics indicate that over 90% of start-ups fail, with only about 30% achieving significant success within five to seven years of establishment (Cusumano, 2013).

In this context, crowdfunding has emerged as a viable alternative financing method, offering start-ups and small enterprises an opportunity to raise capital without relying on traditional financial institutions. By leveraging digital platforms, entrepreneurs can connect directly with potential investors, reducing dependency on banks, venture capitalists, and angel investors. Additionally, crowdfunding provides businesses with early market validation, enabling them to gauge consumer interest and refine their products or services based on feedback.

Given these advantages, crowdfunding serves as both a funding mechanism and a strategic tool for fostering innovation and economic growth, particularly for businesses that struggle to access conventional financial resources.

Conclusion

The landscape of startup and SME financing in India requires innovative solutions, particularly when conventional banking systems fall short. While crowdfunding emerged globally as a democratic funding mechanism allowing small investors to collectively support emerging businesses, India's participation remains minimal compared to other nations. A key obstacle has been the regulatory uncertainty surrounding equity crowdfunding, with SEBI's decision to regulate it under the Companies Act 2013 creating a restrictive environment that has hindered the sector's growth. Although SEBI indicated in March 2017 that it would consider revising these regulations, meaningful expansion of the sector faces continued challenges.

Drawing lessons from international examples like the US JOBS Act of 2012, India could benefit from more flexible regulations that expand investor participation while maintaining appropriate safeguards, such as developing regulated secondary markets and establishing clear oversight for online funding platforms. For India to fully leverage crowdfunding's potential in supporting startups and SMEs, the government needs to establish clear legal recognition for funding platforms, creating a secure environment for legitimate investment activities. This analysis suggests several areas for future research, including examining peer-to-peer lending platforms, conducting comparative studies with other countries' crowdfunding ecosystems, and investigating success factors for equity-based platforms and their funded projects.

Reference

- Dr. G V M Sharma, Dr. Anitha. S. Yadav and Prakruthi. N Udupa, Crowd funding In India: An Empirical Study, *International Journal Of Advance Research*, (IJAR), 7(3), 935-942, 2019.
- Gartner, W. B., Frid, C. J., & Alexander, J. C., Financing the emerging firm. *Small business economics*, 39(3), 745-761, 2012.
- Ghosh, M., Exploride smashes all crowd funding records for Indian startups; successfully raises Rs3.4CRon Indiegogo, Trak.in - Indian Business of Tech, Mobile & Startups, 2015.
- Lehner, O. M. (2013). Crowdfunding social ventures: A model and research agenda. *Venture Capital*. 15: 289– 311, 2013.
- Menon, S., Crowd control: Sebi warning turns off crowdfunding tap for start-ups. Retrieved July, p. 17, 2017. Mollick, E., The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1–16, 2014. <https://doi.org/10.1016/j.jbusvent.2013.06.005>



- Paschen, J., Choose wisely: Crowdfunding through the stages of the start-up life cycle. *Business Horizons*, 60(2), 179–188, 2017. <https://doi.org/10.1016/j.bushor.2016.11.003>
- Salomon, V., Strategies of Startup Evaluation on Crowdfunding Platforms: the Case of Switzerland. *Journal of Innovation Economics & Management*, n° 26(2), 63–88, 2018. <https://doi.org/10.3917/jie.pr1.0029>
- Sarda, A., & Goel, A. (2014). Consultation Paper on Crowdfunding in India. Working Paper of Securities and Exchange Board of India, 1–66, 2014.

**RBI REGULATORY INTERVENTION AND MARKET REACTION: AN EVENT STUDY OF IIFL FINANCE LTD.**

By

Ridham Anandkumar Prajapati

Junior Research Fellow

School of Commerce, Gujarat University, Ahmedabad

&

Dr. Shital Rathod

Assistant Professor

SLU Arts & H. & P. Thakore Commerce College for Women, Ahmedabad

Abstract

Purpose – This study investigates the significance of the impact of the RBI's ban on gold loan lending on the daily closing stock prices of IIFL Finance Ltd. Design/methodology/approach – The event study methodology was used with a 21-day event window (10 days prior, 10 days after and the day of the event). Three models were utilized to calculate ARs and CARs. Findings – The statistical results indicate the majority of ARs and CARs were significant during the Event Window, particularly in the post-event period. Thus, it can be concluded that the RBI's ban on gold loan lending significantly impacted the stock prices of IIFL Finance Ltd., highlighting a notable market reaction during the study period.

Keywords: IIFL Finance Ltd, RBI's ban on gold loan, Event Study, Market Models, Abnormal Returns

Introduction

The Stock market has appeared as a significant tool for investors as the Indian stock market has seen noteworthy growth, attracting interest from both local and foreign investors (Bhattacharjee et al., 2016). This can be seen from the investment in the mutual funds through the SIP from 4,095 Cr. in January 2017 to 26,459 Cr. in December 2024. The stock market is a dynamic and complex ecosystem where the prices of individual companies' share constantly fluctuate. According to Yuniningsih, et al. (2024) many factors should be considered for decision making in investment both in the form of internal and external. The internal factors can be the education level, willingness, psychology or knowledge, while the macro external factors such as economic event, regulatory event or political event as well as the micro events such as the announcement of financial statements of the company or industry, or related corporate actions etc. these events can be perceived positive for a company or the broader economy, the investors becomes optimistic, on the other hand the negative event can create uncertainty among investors. Thus, various authorities and statutory bodies such as SEBI, RBI etc. inspect the companies and take regulatory interventions upon finding irregularities in the business. To understand the impact of such interventions can be crucial for the investors, policymakers and corporations as it sheds light on market efficiency and the sensitivity of equity markets to external stimuli.

➤ India Infoline Finance Limited (IIFL) and RBI's ban on lending gold loans

IIFL (INE530B01024) is one of the leading Non-Banking Financial Company (NBFC) in gold lending business which has Market Cap of ₹17,849.36 Cr. the RBI imposed a ban on IIFL Finance Ltd on 4th March 2024, Due to serious deviations in the process of assessment and clarification of purity and net weight of the gold and at the time of auction upon defaulting.

Literature Review

From the Literature review, it is observed that events such as corporate actions, regulatory interventions, insider trading studies, which have become a vital methodological tool in financial research, extensively used to evaluate the impact of specific events on stock prices. Jain and Sunderman (2014) has investigated informed trading in India's emerging markets, analysing mergers across various



economic cycles. The result proved that insider information substantially impacts stock prices. Similarly, Ahmad et al. (2022) extended this by analysing emerging markets, uncovering that stock prices prior to merger announcements are significantly affected by insider trading, thus underscoring its critical role in financial market behaviour.

A corporate announcement beyond mergers also displays notable market reactions. Researchers have investigated how these events shape stock performance. Rai and Pandey (2022) examined the effects of privatization announcements for public sector banks in India. Their study revealed that those announcements tend to effect negative cumulative abnormal results for both public and private sector banks. Panigrahi, K. K. (2024) examined the impact of the Russia-Ukraine conflict on defence industry stocks using the Fama-French three-factor model and the market model. The study revealed that cumulative abnormal returns were significantly positive for 20 firms, emphasizing that geopolitical conflicts can impact valuations in targeted sectors like defence. In the same line, Yudaruddin et al. (2024) observed that there is a significant negative impact on MENA region's capital markets due to the Israel-Hamas conflict.

Mallesha and Archana (2023) showed that substantial corporate developments, including adverse reports or announcements can also trigger significant market reactions. By analysing the stock prices of the Adani Group after the Hindenburg Research report using event study over a 21-day window, the researcher recognised significant effect on abnormal returns, specifically in the post-event period, indicating the market's delayed and strong reaction to adverse information.

Conclusively, event studies provide robust frameworks for analysing stock market reactions across diverse scenarios, whether it is geopolitical events, corporate announcements, or global crises. They underline how events shape investor expectations, price discovery, and market efficiency. The integration of methodologies, such as the market model and Fama-French three-factor model as highlighted by (Brown & Warner, 1980, 1985), further strengthens their relevance in financial research.

Research Methodology

- **Research Objective**

The main objective of the research is to study the impact of RBI's ban on gold-loan lending on share price of IIFL Finance Ltd.

- **Research Hypothesis**

H_0 = There is no significant impact of RBI's ban on gold-loan lending on share price of IIFL Finance Ltd.

H_1 = There is significant impact of RBI's ban on gold-loan lending on share price of IIFL Finance Ltd.

Sample and Data Source

This study relied solely on secondary data, analysing three datasets: the date of the RBI's ban on gold-loan lending, the daily closing stock prices of IIFL Finance Ltd., and the daily closing prices of the Nifty Small Cap 250 Index to calculate market returns. Data were obtained from the NSE India website. The study is conducted to examine the impact of the gold-loan lending ban specifically targeting IIFL Finance Ltd. The event window extends from 20th February 2024 to 19th March 2024. A 100-day estimation window has been defined, running from 26th September 2023 to 19th February 2024, as illustrated in Figure 1. This period is used to compute the intercept and alpha values.

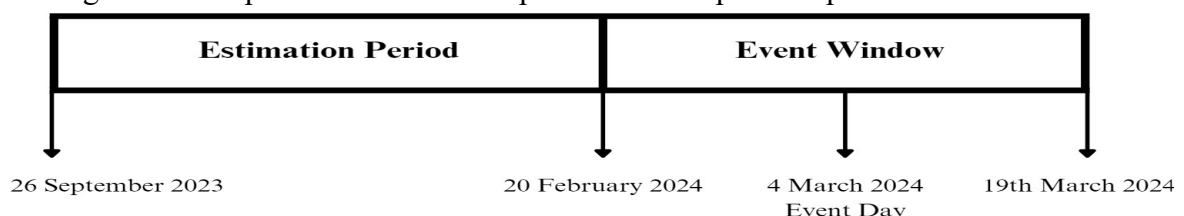


Figure 1: Figure showing the dates of Estimation period and Event window



Event Study Methodology

An Event Study is a statistical approach utilized to assess the effect of a particular event on a specific security. This research employed the widely recognized market model developed by Sharpe to analyse stock returns in relation to market movements (Rai & Pandey, 2022; Yaseen & Ruxandra, 2019). The process for performing an event study using the market model includes the following steps. This time frame has been established as ten days after the event and ten days before the event, resulting in a total event window of 21 days (Sharma & Verma, 2020).

1. Defining the Event: The first step is to identify the Event to be studied; here it is the date of the RBI's ban on gold-loan lending, i.e. 4th March 2024.
2. Determining the Event window and Estimation Period: The second step is to determine the period which can be affected by the event. Based on previous literature, this time frame has been established as ten days after the event and ten days before the event, resulting in a total event window of 21 days (Sharma & Verma, 2020). As illustrated in Figure 1. Estimation period is used to compute the intercept and alpha values.
3. Collecting the Data: To examine the impact of an event on IIFL Finance Ltd.'s stock prices, historical data for both the company and the market index, acting as the market benchmark, has been collected and natural log is used to make data comparable.
4. Establishing a benchmark: The Nifty Small Cap 250 Index will serve as the market benchmark to account for any market-wide factors affecting IIFL Finance Ltd.'s stock returns during the event window.
5. Calculating Abnormal Returns (ARs) and Cumulative Abnormal Returns (CARs): Abnormal returns and Cumulative Abnormal Returns are computed differently in different models.
6. Testing for statistical significance: In the end, to ascertain whether the ARs and CARs are significant and show that the event significantly affected the security's returns, a t-test or other statistical test is employed.

Models: Researchers have employed 3 models given by Brown & Warner (1980).

- I. Mean Adjusted Returns model
- II. Market Adjusted Returns
- III. Market and Risk Adjusted Returns Model

Mean Adjusted Returns model

The Mean Adjusted Returns model posits that the expected return in advance for a specific security i is represented by a constant that may vary among different securities:

$$E_i = \bar{R}$$

The anticipated return after the fact on security i during period t is equal to $= \bar{R}$. The abnormal return AR_{it} is determined by the difference between the actual return, R_{it} , and the expected return E_i : $AR_{it} = R_{it} - E_i$. Cumulative Abnormal Returns (CARs) represent the total of all abnormal returns.

Market Adjusted Returns Model

This model suggests that expected returns in advance are uniform across securities but may not be fixed for a specific security. Given that the market portfolio of risky assets M is formed from a linear aggregation of all securities, it follows that

$$E(R) = E(R_{mt}) = K \text{ for any security } i.$$

The actual abnormal return on any security i is calculated by the difference between its return and that of the market Index: $AR_{it} = R_{it} - R_{mt}$. Cumulative Abnormal Returns (CARs) signify the total of all abnormal returns.

Market and Risk Adjusted Returns Model

This model assumes that expected returns are derived from a variant of the Capital Asset Pricing Model. Regression analysis is employed to assess the relationship between security's returns and the



Index during the event window. The resulting coefficients help evaluate the event's impact on the security's returns. Abnormal returns are computed by deducting the expected return, estimated using regression coefficients, from the actual return. Cumulative Abnormal Returns (CARs) is the sum of all abnormal returns. (Brown & Warner, 1980, 1985)

The market model can be formulated mathematically as follows:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \text{ for } i = 1 \dots N. (1)$$

To find the value of the α and β a simple regression model is applied to estimate the returns for the security by considering the actual market returns, R_{mt} of Estimation Period.

$$\text{Expected returns} = E(R_{it}) = \alpha_i + \beta_i R_{mt}$$

The ARs is calculated using the following method:

$$AR_{it} = R_{it} - E(R_{it})$$

Parametric Significance Test

The null hypothesis of no significant ARs after the event day was tested using a level of significance 1% and 5% with the appropriate degree of freedom. The calculation of t-test statistics for each day's AR during the event window is as follows:

$$t = \frac{AR}{\sigma(AR)}$$

Where $\sigma(AR)$ is standard deviation of Abnormal Return of estimation period.

Calculation of the t-statistics for CAR for each day within the event window is performed using the following equation:

$$t = \frac{CAR}{\sigma(CAR)}$$

Where $\sigma(CAR)$ is standard deviation of Cumulative Abnormal Return of estimation period.

The formula for determining the standard error is as follows:

$$SE = \frac{\sigma}{\sqrt{n}}$$

Data Analysis and Interpretation:

To justify the objective, Event study methodology has been applied. The Values of Alpha (α) and Beta (β) of estimation period are -0.15482% and 0.950107 respectively which is derived from Regression. The Beta value is slightly less than 1 which shows that the IIFL Finance Ltd. is less volatile in comparison to the market returns represented by The Nifty Small Cap 250 Index. The stock price performance of the IIFL Financial Ltd. under consideration is shown during the event window of -10 to +10 days. The AR is depicted as the deviation between the actual and expected returns, calculated using the ordinary least square method.

Table-1 Table showing Abnormal Returns (%)

Days	Abnormal Returns (%)					
	CR Model	t-Stat	MAR Model	t-Stat	MRAR Model	t-Stat
-10	-2.37	-1.04	-1.91	-0.92	-1.77	-0.85
-9	0.39	0.17	1.24	0.60	1.35	0.65
-8	-0.62	-0.27	-1.17	-0.56	-0.98	-0.47
-7	0.25	0.11	-0.25	-0.12	-0.07	-0.03
-6	1.30	0.57	1.54	0.74	1.68	0.81
-5	-0.29	-0.13	-0.48	-0.23	-0.31	-0.15
-4	-4.55	-1.99*	-2.58	-1.24	-2.52	-1.21
-3	1.49	0.65	1.09	0.52	1.26	0.61
-2	5.21	2.28*	4.63	2.23*	4.82	2.32*



-1	-0.02	-0.01	-0.67	-0.32	-0.48	-0.23
0	-4.23	-1.85	-3.56	-1.72	-3.44	-1.66
1	-22.37	-9.81**	-21.66	-10.43**	-21.54	-10.38**
2	-22.38	-9.81**	-20.32	-9.79**	-20.27	-9.77**
3	9.43	4.13**	8.68	4.18**	8.88	4.28**
4	-7.48	-3.28**	-5.40	-2.60*	-5.34	-2.58*
5	1.73	0.76	3.87	1.86	3.92	1.89
6	-3.42	-1.50	1.96	0.94	1.85	0.89
7	-3.67	-1.61	-6.67	-3.21**	-6.36	-3.07**
8	-0.84	-0.37	-0.99	-0.47	-0.82	-0.40
9	-0.02	-0.01	0.33	0.16	0.47	0.23
10	-2.37	-1.04	-1.12	-0.54	-1.03	-0.49

Note: *Denotes significant at 5 level. **Denotes significant at 1 level.

The table 1 shows that the first four days of the adjustment period had a notable impact on the share price. Specifically, the first three days were significant at the 1% level across all three models, while the fourth day was significant at the 5% level in two models and at the 1% level in the CR model. However, the event day itself was not significant. During the anticipation phase, significance was observed on day -2 at the 5% level. Beyond the fourth day, significance reappeared on day 7 at the 1% level.

Table-2 Table showing Cumulative Abnormal Returns (%)

Cumulative Abnormal Returns (%)						
Days	CR Model	t-Stat	MAR Model	t-Stat	MRAR Model	t-Stat
-10	-2.37%	-0.53	-1.91%	-0.21	-1.77%	-0.36
-9	-1.99%	-0.44	-0.67%	-0.08	-0.42%	-0.09
-8	-2.61%	-0.58	-1.84%	-0.21	-1.40%	-0.29
-7	-2.36%	-0.53	-2.09%	-0.23	-1.47%	-0.30
-6	-1.06%	-0.24	-0.55%	-0.06	0.21%	0.04
-5	-1.34%	-0.30	-1.03%	-0.12	-0.10%	-0.02
-4	-5.89%	-1.31	-3.61%	-0.40	-2.61%	-0.53
-3	-4.40%	-0.98	-2.52%	-0.28	-1.35%	-0.27
-2	0.81%	0.18	2.11%	0.24	3.47%	0.70
-1	0.78%	0.17	1.44%	0.16	2.99%	0.61
0	-3.45%	-0.77	-2.12%	-0.24	-0.45%	-0.09
1	-25.82%	-5.76**	-23.78%	-2.66**	-21.99%	-4.47**
2	-48.20%	-10.75**	-44.10%	-4.93**	-42.25%	-8.59**
3	-38.77%	-8.65**	-35.42%	-3.96**	-33.37%	-6.79**
4	-46.25%	-10.31**	-40.82%	-4.57**	-38.72%	-7.87**
5	-44.53%	-9.93**	-36.95%	-4.13**	-34.80%	-7.08**
6	-47.94%	-10.69**	-34.99%	-3.91**	-32.95%	-6.70**
7	-51.61%	-11.51**	-41.66%	-4.66**	-39.31%	-7.99**
8	-52.45%	-11.70**	-42.64%	-4.77**	-40.13%	-8.16**
9	-52.47%	-11.70**	-42.31%	-4.73**	-39.66%	-8.07**
10	-54.85%	-12.23**	-43.44%	-4.86**	-40.69%	-8.27**

Note: *Denotes significant at 5% level. **Denotes significant at 1% level.



The table 2 provide evidence that all the days of the adjustment period had a significant impact on the cumulative share price. All three models showed abnormal returns at 1% significance level in the adjustment phase. On the contrary, the event day itself was not significant and during the anticipation phase, no abnormal returns were significant at any level of significance.

Table 3 showing t-Statistics for Abnormal Returns and Cumulative Abnormal Returns

Phase	AR t-Stat			CAR t-Stat		
	CR Model	MAR Model	MRAR Model	CR Model	MAR Model	MRAR Model
Event	-1.11	-1.01	-0.97	-1.11	-1.01	-0.97
Anticipation	0.06	0.13	0.27	0.04	0.11	0.25
Adjustment	-4.26**	-3.69**	-3.59**	-3.66**	-3.37**	-3.30**
Total Event Window	-3.14**	-2.68**	-2.50**	-2.64**	-2.41**	-2.30**

Note: *Denotes significant at 5% level. **Denotes significant at 1% level.

The table 3 demonstrates that all three models shows that there is a significant effect at 1% significance level on both abnormal and Cumulative abnormal returns in the adjustment period as well as in total event window of 21 days. But on the event date and in anticipation phase, there is no significant AR nor CAR at any significance level by any model.

Conclusion

This study examined the significance of the impact of the RBI's ban on gold loan lending on the daily closing stock prices and values of IIFL Finance Ltd. The event study methodology was used with a 21-day event window (10 days prior, 10 days after and the day of the event). ARs were measured using three models. The results showed that the majority of ARs and CARs were significant during the Event Window, particularly in the post-event period. Thus, it can be concluded that the RBI's ban on gold loan lending significantly impacted the stock prices of IIFL Finance Ltd., highlighting a notable market reaction during the study period.

Similar findings have been observed in prior research conducted by taking lockdown announcements, Hindenburg Research report and scams as events (Kumar Pandey & Kumari, 2020; Mallesha & Archana,2023; Maitra & Dey, 2012). We can also infer that IIFL Finance Ltd.'s stock prices did not immediately reflect on the date of the Event. Future research can be upon this by exploring the efficiency of the stock market using various forms of corporate actions, i.e., Bonuses, Stock-splits, Annual reports, Dividends, etc. and explore market efficiency by taking a longer timeline of the event window.

References

- Ahmad, S. R., Al-Matari, E. M., Ali, I., Baig, A., Garg, R., & Khan, I. A. (2022). The effect of accounting fraud on the reliability of the published profit after the completion of correction: The period after the submission of the correction report. *Academic Journal of Interdisciplinary Studies*, 11(3), 266. <https://doi.org/10.36941/ajis-2022-0082>
- Belgaumi, M. S. (1995). Efficiency of the Indian stock market: an empirical study. *Vikalpa*, 20(2), 43-52. <https://doi.org/10.1177/0256090919950204>
- Bhattacharjee, B., Dave, S., & Sondhi, S. (2016). Relevance of efficient market hypothesis: a study of present scenario in India. *Journal of Management Research and Analysis*, 3(2), 82-87. <https://doi.org/10.5958/2394-2770.2016.00013.2>
- Dawar, G., & Goyal, S. (2013). Impact of Corporate Scams on share prices: A Study of Indian Stock market. *International Journal of Management Excellence* (ISSN: 2292-1648), 1(2), 32-37. <https://doi.org/10.17722/ijme.v1i2.7>



- Fama, E. F. (1970). Efficient capital markets. *Journal of finance*, 25(2), 383-417.
- Jain, P., & Sunderman, M. (2014). Stock price movement around the merger announcements: insider trading or market anticipation?. *Managerial Finance*, 40(8), 821-843. <https://doi.org/10.1108/MF-09-2013-0256>
- Panigrahi, K. K. (2024). Impact of the Russia-Ukraine War on the Stock Performance of the Defence Industry: An Event Study Analysis. 143–163. <https://doi.org/10.23862/kiit-parikalpana/2024/v20/i1/225098>
- Pandey, D. K., & Kumari, V. (2020). Effects of merger and acquisition announcements on stock returns: an empirical study of banks listed on NSE & NYSE. *The review of finance and banking*, 12(1).
- Rai, V. K., & Pandey, D. K. (2022). Does privatization of public sector banks affect stock prices? An event study approach on the Indian banking sector stocks. *Asian Journal of Accounting Research*, 7(1), 71-83.
- Rizwan, S. (2019). Corporate frauds, information asymmetry and stock market reaction in Pakistan. *Global Regional Review*, 4(2), 126-133. [https://doi.org/10.31703/grr.2019\(IV-II\).14](https://doi.org/10.31703/grr.2019(IV-II).14)
- Sharma, D., & Verma, R. (2020). Reaction of stock price to frauds' announcements: Evidence from Indian Banking Sector. *Asia-Pacific Journal of Management Research and Innovation*, 16(2), 157-166. <https://doi.org/10.1177/2319510X20930879>
- Thaker, K., & Jitendra K, A. (2008). Efficient market theory: in relation with bonus issue announcement in Indian market. *Paradigm*, 12(2), 62-72. <https://doi.org/10.1177/0971890720080207>
- Yaseen, H., & Trifan, R. (2019). The impact of dividend events on stock returns: Findings on companies listed on the Bucharest stock exchange. *The Review of Finance and Banking*, 11(2). <https://doi.org/10.24818/rfb.19.11.02.02>
- Yuniningsih, Y., Widodo, S., & Wajdi, M. B. N. (2017). An analysis of decision making in the stock investment. *Economic: Journal of Economic and Islamic Law*, 8(2), 122-128. <https://www.amfiindia.com/mutual-fund>

**FINANCIAL SHENANIGANS**

By

Dr. Shailaja Parmar

Assistant Professor

Sheth H. P. Arts & T.S.M. Commerce College, Talod

Abstract

Financial shenanigans are nothing but the misrepresentation of financial statements of a company by fabricated actions or by omitting the financial facts. Financial shenanigans as alarming concepts, has ample area for the researchers to discover. Answering three “WH” questions why, who and how aspect of financial shenanigans is the basic objective of this paper. Attaining the desired level of profit by using certain techniques those are not advisable or violating the accounting standards. Along answering the questions, who, why and how, explained well the methods of entertaining frauds in the financial statement. It will be helpful to the users of financial statement to stay informed and take proper investment decisions. Identifying the frauds at an early stage will lessen the financial and ethical harm to the company. It is always said that cure is always better than precautions. And it is believed by the researcher that appointment of forensic auditor is must in every organization to safeguard the interest of the company’s investors and their trust.

Key words: Fraud, financial reporting, Practices, financial shenanigans

“More money, it has been noted, has been stolen with the point of a Pen than at the point of a Gun.”

Quoted out of experience by Warren Buffett, in the Annual Shareholders Letter of Berkshire Hathaway. (Warren Buffett Quotes) Financial shenanigans are the reflections of this statement. Statement is very momentous from financial shenanigans standpoint as it’s actually a point of pen only which is been used to manipulate and undermines the integrity of financial statements of a company. Masking the glossy features to the financial health of the company is nothing but the financial shenanigans. Misrepresenting the financial statements of an organizations by omissions or fabricated actions are called as financial shenanigans. The intent behind can be to misrepresent the financial statements to deceive the investors and the auditors of the company. Even window dressing is again a technique used to improve the appearance of financial statement. Until and unless, it’s not violating the rules and regulations, it is not illegal while financial shenanigans are unethical and illegal too.

Why understanding of financial shenanigans is significant?

Misrepresenting the financial statements of an organizations by omissions or fabricated actions are called as financial shenanigans. The intent behind can be to misrepresent the financial statements to deceive the investors and the auditors of the company. As a result, incorrect decision making can be established based on the financial statements of the company.

1. Concern for investors interest
2. Leads to incorrect decision making
3. Protect investors from fraudulent activities
4. Undermines integrity of financial markets
5. Erodes trust in company
6. Leads to substantial financial loss
7. Deliberate manipulation of financial information
8. Misleads the process of informed decision making
9. Creates false picturization of company’s financial performance
10. Harms the financial health of innocent investors

Executing financial shenanigans leads to few adjustments minor in nature resulting into the ballooned unrealistic and artificial revenues and profits. In the words of Ramalinga Raju, practicing



financial shenanigans is “It was like riding a tiger not knowing how to get off without being eaten”. (Chhabaria) The actions are performed to mislead the parties concerned with the financial statements of the company in varied capacities. Management of the companies, board of directors so called representatives of the investors themselves are involved in deceived actions.

Literature Review

It is observed from the reading that “Risk comes from not knowing what you’re doing.” - Warren Buffett (Warren Buffett Quotes) The tricks used by management to mislead investors about a company’s financial performance or economic health are nothing but the financial shenanigans. So, it is needed for all the stakeholders to get an idea of financial shenanigans. (Sharma, 2018) It is stated in the article that financial shenanigans are acts or actions designed to mask or misrepresent the true financial performance or actual financial position of a company or entity. (Niveshak) Financial shenanigans are classified as Earning Manipulation, Key Metric, Cash flow and Acquisition Accounting. (Chhabaria) The author presented that various scam like Harshad Mehta scam, Satyam Computers Scam, Ketan Parikh scam, Mundra scam, Nirav Modi scam have occurred in the Indian history and that incorporates the need of insightful investigation and examination of books of accounting and so Forensic Accounting. (Kumar, 2021) Sanjeeb Kumar Dey expressed that irrespective of the size of the fraud, techniques remained same, the title changes, sometimes, “Financial Shenanigans”, or “Creative Accounting”, or “Earning Management”. (Sharma, 2018)

Objectives of the Study

Understanding the intensity of the frauds taking place around the corporate and banking sector around the world, one should be equipped with the knowledge of financial shenanigans so as to safeguards themselves from any deceptive actions. The objective of this paper is to answer following three questions

- Why financial shenanigans?
- Involvement of whom in financial shenanigans?
- How financial shenanigans committed?

Why financial shenanigans?

Fraud Triangle: Cressey Donald in the year 1953 has given the model called as “**Fraud Triangle**” according to this there are three legs namely Pressure, Opportunity and Rationalization that motivates or leads an individual to commit fraud or fraudulent actions. These legs are nothing but the conditions or the circumstances leading to fraud by an individual.

- **Pressure:** Pressure resulting out of financial problems, personal problems, or even addiction, unscrupulous work environment turning as an incentive to get involved in the fraud. An unrealistic expectation from investors, sources of finance, remuneration even can be sources of pressure motivating management or even employees to commit frauds in the organization.
- **Opportunity:** According to Cressey Donald, general information and technical skills are the two components perceived as an opportunity to commit the fraud. General information here mean the chance to violate the employees’ position and his abilities to commit fraud without being caught are technical skills.
- **Rationalization:** Rationalization can be the motivation by the embezzler to himself to commit the fraud treating it as ethical and not misdeeds. This is pre fraud feeling. It is highly needed while committing fraud as one must first of all trust himself as the most trusted person.

Fraud Diamond Theory: According to Fraud Diamond Theory an extension to Fraud Triangle portrays that along with pressure, opportunity and rationalization, the fourth component “**Capability**” is equally



important to commit fraud. Capability is nothing but an ability of ones to exploit fraud's opportunity. Wolfe and Hermonson recommended that these are personal traits of an individual proving as added advantages to deal with stress effectively exploit the opportunity to commit fraud successfully.

Fraud Pentagon Theory: The theory was extended in the year 2010 by Jonathan Marks. According to him there are in total five motivating factors leading to fraud; rationalization, opportunity, pressure, competence and arrogance. Competence and arrogance are the two factors that are added as the motives for fraud. competency here mean the same expressed in Fraud Diamond Theory as Capability. Arrogance on the other hand can be the courage to misdeed the things and an understanding of having power to ignore the internal control system in the company while committing fraud.

Minimizing tax liabilities, individual greediness, performance linked remuneration system, bonus and benefits, compensations, to avoid work loss, while entering into negotiations with employees for increment of their salaries are even some of the reasons why frauds are committed in the organizations.

Involvement of whom in Financial Shenanigans:

The frauds can be committed by the management and the employees of the organization. Majorly financial statement frauds are exercised by the management of the company as their involvement in the preparation of the financial results will be intensive rather than the employees.

The conditions like ineffective corporate team inefficient to take required and prompt decisions to drive the business in proper direction, supervision authorities with no responsibilities and accountabilities even lead to financial frauds. Permanent engagement of employees with the organization and the most trusted employees are inclined more near frauds.

The organization, where the governance is of poor level, extensive management control and insignificant role of audit committee found will have more chances to be decorated with creative accounting. Newly formed organizations always have the pressure to keep all the stakeholders happy. They have the pressure to present the sound financial records. Private companies to attract investors for the investment purpose may use financial shenanigans.

Presenting true and fair financial statements is an expertise expected from the professionals of accountancy and auditing. Such expertise can be used to manipulate the financial position to exaggerate the profits to get listed on stock exchanges. So, the companies expecting to be the part of recognized stock exchange can even be the prospect of fraud.

The scams like Satyam Computers scam, Harshad Mehta Scam, Vijay Mallya scam, Nirav Modi scam, Stamp paper scam witnessed the involvement of owners and executives in financial shenanigans. Even the executives' officers, decision makers, board of directors, Government officials, employees, promoters are found equally responsible for so called earning management or financial shenanigans.

According to a report in 2009 issued by Certified Institute of Management Accounting (CIMA) has issued a report in the year 2009 stating that fraudsters can be classified into three groups; pre planned, intermediate and slippery slope fraudsters. Pre-planned fraudsters are the master minds. They begin with the intent of deception itself. Intermediate fraudsters are those with the passage of time who turned to be fraudsters and third one simply continues to cheat.

How Financial Shenanigans committed?

Dr. Howard M. Schilit, CPA by profession has suggested seven methods that may be used for executing financial shenanigans. He is pioneer in the field of identifying and exploring financial shenanigans. He has identified the tricks those used in the books of accounts to mislead the investors.



Boosting Income with One-Time Gains

There are certain transactions like sale of capital assets, any unexpected gains or losses from change in accounting policies, discontinuation of business operations or even impact of any uncommon event leads to unexpected income in the organization. But the certainty is completely missing. The cash inflows can be from operating activities, financial activities and investment activities. And the accounting treatment of all these receipts have different implications in the books of accounts. Inclusion of income from investment and financial activities in the operating activities will lead to increased income of the organization which misrepresents the financial aspects of the company. Treatment of recurring and non-recurring cost should also be differentiated in the books of accounts as needed by the accounting rules. Setting up off operating expenses should only be done with operating income and not with non-recurring nature income. They should be presented fairly in the books of accounts. Inadequate presentation of revaluation, depreciation, impairment losses, practicing overvaluation or undervaluation of assets, treatment of loss or gain on sale of any asset are the common practices adopted by the corporate houses to misrepresent the financial statement.

Shifting Current Revenue to a Later Period

The companies those are financially sound and doing well may not record and recognize their current revenue totally. They hold back their revenue and they recognize that when they may not do well or may have lesser profitability than expected level. To keep the financial records, stable and promising, it's normal practice of the company to create reserves so as to use them in the period when there will be less profitability, hence maintaining financial stability of the firm intact. The reason behind while investing in any corporate, investors are more concerned about the sustainability of the company's financial stability.

Recording Bogus Revenue

In order to reflect increased revenues of the companies, the bogus vouchers of sales or revenues will be created for sale of certain goods those does not exists or not sold to them. Side agreement or side letters allowing customers of the company to return unsold goods after a stipulated period of time if hided from the auditors of the company mislead to creation of sales revenue. An existence of such fictitious element is a financial shenanigan. Recording a liability as a revenue in the profit and loss account instead recognizing it as liability in the balance sheet will lead to financial shenanigan.

Shifting Future Expenses to the Current Period as a Special Charge

Here the company may take the steps like shifting future expenses to current period and reducing the liability of tax in a current period. Such practices lead to increased profitability of the firm in future period making investors happy with financial records of the company. The steps like restructuring, downsizing are onetime adjustments and non-recurring in nature and so cannot be identified as fraudulent action practiced by the company just to decorate their profitability.

Failing to Record or Improperly Reducing Liabilities

This is basically overestimating assets and incomes or underestimating of liabilities and expenses, both the actions lead to misrepresentation of financial health of the company. In both practices, the profits of the company will be inflated artificially, which is ethically wrong and malicious. For example, an asset can be depreciated with different methods. Changing the method every year without due disclosure or charging inappropriate depreciation, both are financial shenanigans only.



Shifting Current Expenses to a Later or Earlier Period

Non-recording the expenses leads to improved profits attracting high tax liability. But this is normally being adopted so as to keep investor happy. Companies may use the method to shift such expenses to later period or earlier period. Shifting of expenses to the later period may shift the liability to near future and it can be short term benefit. But if it's been done for shifting expenses to the earlier period then, it will be a long-term thinking.

Changing accounting policies is another trick to financial fraud. changing accounting policies and presenting the impact of the same fairly needs an expert knowledge. One should be capable enough to sense such frauds if the policies are changed frequently and at the ending period. Changing accounting policies is prohibited by the accounting standards. But its really inevitable and extremely required for the wellbeing of company, proper disclosure is expected to be done by the company.

Amortization of deferred expenses like promotion expenses, marketing expenses, amortization of any asset, research and development cost are opportunistic destination to commit frauds by the corporates. International Financial Reporting Standards mandates amortizing the capital expenses in five equal installments presenting them as expense in the profit and loss account. If not done so, it violates the basic accounting concept called "Matching Concept".

Recording Revenue too soon or of Questionable Quality

Receipt of revenue or income in advance is the favourite shenanigans of the corporates. Recognition of revenue earlier needs raising of liability even. On uncertainty of receipt of payments from debtors, the reserves for doubtful debts needs to be generated to safeguard future losses of non-receipt of revenue. Corporates use the practice to recognize revenue before it occurs. They send the goods out of warehouse prior to its demand from the customers. Those are artificial creation of sales to improve the income of the company. International Financial Reporting Standard requires to check the credit worthiness of the buyer before the goods are sent to them on credit. Revenue of such sale can not be raised until such arrangements are done.

Further related party transactions are most difficult to detect and to check their worthiness. Related party transactions are completely allowed but when both subsidiary and holding companies are on the urge of winding up their entity, very hard to get revenue due to competition, and if such related party transactions take place to misguide the investors and grab the investment opportunities then it is violating the rules of accounting and auditing standards.

Conclusion

Answering three "WH" questions why, who and how aspect of financial shenanigans was the basic objective of this attempt. Attaining the desired level of profit by using certain techniques those are not advisable or violating the accounting standards. Along answering the questions, who, why and how, explained well the methods of entertaining frauds in the financial statement. It will be helpful to the users of financial statement to stay informed and take proper investment decisions. Identifying the frauds at an early stage will lessen the financial and ethical harm to the company. It is always said that cure is always better than precautions. Ignoring the risk of fraud will be a very big mistake on the part of corporates and they should believe in investing in the cost of fraud detection techniques. Appointment of forensic auditors in the company will be the affirmative action by the corporates to safeguard the interest of the company's investors and their trust.



References

- Chhabaria, C. (n.d.). Fundas : Financial Shenanigans Part 1: Manipulating Revenues. Retrieved from Capitall Mind Premium: <https://premium.capitalmind.in/2019/08/fundas-financial-shenanigans-part-1-manipulating-revenues/>
- Deepa Mangala, P. K. (2015, January). Corporate Fraud Prevention and Detection: Revisiting the Literature. *Journal of Commerce & Accountancy Research*, 52-62. Retrieved from <http://www.publishingindia.com/GetBrochure.aspx?query=UERGQnJvY2h1cmVzfC8yNjI2LnBkZnwv>
- Gamlath Mohottige Mudith Sujeewa, M. S. (2018, August). The New Fraud Tringle Theory - Integrating Ethical Values of Employees. *International Journal of Business, Economics and Law*.
- Khan, M. U. (n.d.). Early Detection of Financial Shenanigans – Auditors’ Perspective in Pakistan.
- Kumar, S. (2021). Impact of Forensic Accounting on Indian Industry. *South Asian Law and Economic Review*, 130-143.
- Niveshak, S. (n.d.). Financial shenanigans 101. Retrieved from <https://www.safalniveshak.com/financial-shenanigans-101/>
- Saptarini, E. H. (2019). Pentagon Fraud Analysis in Detecting Potential Financial Statement Fraud of Banking Companies in Indonesia. 3rd International Conference on Accounting, Business & Economics .
- Sharma, S. K. (2018, July-December). Demystifying the Gimmicks of Financial Shenanigans: A Conceptual Study. *MUDRA: Journal of Finance and Accounting*, 14-25.
- Tarjo TARJO, P. ,-.I. (2023). Predicting Fraudulent Financial statements using cash flow shenanigans. *Business Theory and Practice*.

**CLOUD ACCOUNTING: A NEW BUSINESS STRUCTURE IN A COMPETITIVE MARKET**

By

Prof. Parashar Dave

Department of Commerce

Shree Meghmani Parvar and Shree Bhailalbhai A. Patel (Detrojwala)

Umiya Arts and Commerce College for Girls, Sola, Ahmedabad

Abstract

Accounting has been supporting every commercial action ever since the commencing of trade, as simplified as it was at that time. Due to the requirement to efficiently and exactly decode the economic reality into numbers, accounting has been endlessly cultivating. Moreover, the information technology extension and the emergence of the internet have also moulded this art of recording. In fact, the 21st century has been marked by some stages in the process of IT augmentation and we have witnessed the quick spread of these resolutions in our daily actions, thus improving our lives. One of the most quickly adopted models was cloud computing that had a major effect on the business environment reflecting its different benefits. Simultaneously, the constant challenging context compels all participants in the economic field to be competitive, dynamic and proactive. Hence, companies essential to stay in touch with the de facto state and duly adapt. On the other hand, accounting, as a means to issue relevant and specific information for all stakeholders, has embraced cloud computing solutions. The result is cloud accounting – a new business model that supports the accounting profession. Based upon the most recent studies and practitioners' technical reports, this paper is concentrating on the effect of cloud accounting on each factor in the entire business area.

Keywords: Cloud Accounting, Cloud Computing, Cost, Software

Introduction

Accounting, the language and science of measuring business performance, has been continuously adapting to the economic context. During the late 1950s, the mechanization of accounting data had started, and what followed afterwards was an irretrievable course. The emergence of accounting software has suggestively enhanced the practice of accounting. Considering the large volume of information and the needy time to process it, accounting software became a very convenient tool for accountants to do their job quicker and more effective. Even though accounting software has been around for decades, it has constant to develop its latent over the years; it has become highly sophisticated and this evolution marches on.

The 1990s saw an explosion in the personal, business and government uses of the Internet. In fact, we could actually consider it the starting point of the "Information Revolution". The rise of multimedia and collaborative software created new infrastructures that were planned to host composite applications and web pages. The last decade of the 20th century brought significant advances to data communication, technology evolved quickly and social networks performed. The Internet became quicker, more consistent, less expensive and has prolonged in nearly every area. But most importantly, it has challenged the very foundations of the traditional business model. Additionally, the new generation of smart mobile devices has encouraged the spread of cloud services.

The effect of cloud computing stands in the way that these services are provided: remotely and only on request. Gartner, a leading research company, designated cloud computing as the number one trend that will change the face of business. According to an IDC research study, cloud computing spending will reach \$ 73 billion by 2015 and will restructure the global business context. It is the competence to boost business flexibility that determines the wide cloud adoption, thus affecting all economic actors.



How is cloud accounting a different business model?

Traditional accounting software is generally purchased as a product and installed on each user's computer. We could think cloud accounting a new business model as it is rather provided as a service and not as a product. By accessing the accounting data via the internet, companies are purchasing the use of accounting software from a specialized service provider and not the software itself. Cloud accounting solutions are altering the way that accounting applications are used and they are modifying the entire business environment. Businesses can either grow or disappear just as quickly, depending on their competence to evolve and adapt to the best existing technological framework. At a certain point, the post-factual character of traditional accounting will no longer be enough. Specialists in the field believe that the future belongs to those who will embrace the new technology and adopt its modern vision. For businesses of all sizes, the cloud represents a great opportunity to prevent significant expenses and time utilizing operations.

How does cloud accounting influence the business?

According to practitioners' view, any business can witness massive benefits from using cloud-based solutions. The intuitive design, the possibility to access real-time information and several other advanced features make accounting accessible for both experts and non-experts. By taking a systematic method to risk evaluation, including creating effective policies for cloud usage and a risk response plan, companies can experience the leverage of this new technology and increase operational efficiency. If we think of a company that is accepting such solutions, then we should consider some necessary aspects that reshape the business itself.

A) Dropped costs

The costs comprised when using accounting software include both the up-front investment and the later repairs expenses. A company's preliminary investment can be greatly diminished through cloud accounting offerings because, with this business model, there is no hardware or software licenses to acquire. Specifically for small sized companies that cannot afford expensive infrastructure and the software implementation process, these solutions allow them to run their internal processes and operations using the same IT systems hired by their more developed competitors. They can access the same high-end technology as large or multinational companies and they only pay for what they use. Many companies that comprised the cloud model have been able to significantly decrease costs, because their software is conveyed over the internet and it is not installed on a local computer. The user does not purchase an accounting application, but only the use of it. Without forcing the user to do any other action, automatic updates are worked so that the client can use the latest version of the product right away. All these are possible with a simple connection to the internet.

B) Improved productivity

The fact that the cloud is available 24X7 allows users to work when they want to, not controlling them to office hours only. This creates the business efficiency, because the users are not limited to office hours, bound to a desk, or limited by any kind of access device they might use. By accessing the application from any mobile device or computer, the user is able to check his bank balances or recent operations. The cloud supplier is always using a stable environment because in the end, defending financial data is critical for every business. The information is encoded using greatest security standards and it is safely stored because the application is located "in the cloud", not on a specific device. Even if the user's laptop is stolen or failing, there is no risk of losing data; the same information can be accessed from another device. In case of unanticipated events, there is permanently the possibility of persistent the activity. Before cloud computing, productivity halted once the business owner and their employees left the office. By using online accounting, the business can go on, thus running business continuity. Another factor that can enhance the productivity is the opportunity to use resources in accordance with the business requires. Scalability or the allocation / de-allocation of sources is made



available through the utilize of cloud-based software. The cloud allows entities to rapidly scale up or down because the applications are delivered at the speed of the internet. With conventional software, users have to choose how much to invest up front in IT resources or applications.

C) Concerns and hazards

Considering the statement that today's economic environment is substantially competitive and challenging, each business is very protective when it comes to revealing their financial data. In fact, possessing the right information at the correct time is a very powerful tool in the business discipline. Even though a high level of security has already been established, business owners are still concerned about the safety of their financial information. This is truly the main problem when considering the relocation to the cloud. Concerning business owners is the risk of losing the internet connection. In this situation, the business' continuity or performance is depending on a consistent network and the speed of the data transfer. This is in detail, a false issue because all cloud suppliers have got very clear and certain service-level agreements with their own network providers, so that the cloud user never experiences downtime. Before implementing a cloud solution, companies are effectively advised to try the new product that they want to buy. Since these applications are available online, most cloud accounting suppliers allow users to test their service for free. This trial is proposed when business owners are not sure if a specific solution is appropriate for his particular activity. By using the application for an agreed period of time, a company will know if the solution is suitable, before making a long-term commitment.

What is the accountant's perception?

The cloud has already took almost every business area, but it seems that the accounting profession is skeptical about this new model. According to some accountants, cloud-based software is an apparent menace. Of course, it could be considered a threat for those who are not prepared to adapt and to clearly understand the benefits involved. As we all know, people fear what they do not understand. This business model is not suggesting that accountants are prevented from the branch. In fact, these solutions are meant to simplify the accountant's tasks and to boost the business workflow. Cloud-based applications are not considered to replace the the human factor from the business activity. Accountants need to experience a different point of view and welcome the assistance given by this modern 21st century technology. They also essential to move towards a more interactive service and competently meet the informational needs of businesses that are sometimes straining to assess the way forward. Accountants need to be able to offer real-time insight into profitability. Cloud accounting offers the alternative to shift from paper-based financial statements to real-time financial consoles. Cloud-based accounting software can give companies the chance to change the client relationship by adjusting collaboration and interaction. Accountants can enable business partners to retrieve accurate and real-time data from anywhere through an internet connection. There is a transparent opportunity for accountants to step up and play a critical role in enabling a new level of business insight that could transform the enactment of businesses. This will need the accounting profession to adopt not only new technology, but also a new way of working that minimizes repetitive administrative developments and frees qualified individuals to share their proficiency and knowledge with the marketplace. Technology can help enable this cultural shift and the cloud model can make it affordable for all types of businesses.

Conclusions

The last years has been thrusting an exciting development of information technology. The borderline between technology and our society is collapsing, as IT tools and gadgets are dividing in almost every aspect of our life. In such a dynamic and challenging environment as the economic field, companies are considering a new way for doing business. The cloud concept is getting more famous as time goes by and progressively more companies are adopting cloud-based software in order to enhance



their efficiency and to experience many other advances. The cloud accounting model permits all business participants to closely collaborate by accessing up-to-date financial data in the same time, via the internet. This article is aiming on the cloud accounting explanations as seen from special points of view. We specifically examined the business's and the accountant's outlook with regard to these technologies. We discovered several advantages confirmed by cloud-based software and we have also reviewed the most significant concerns included, as remarked by both business owners and accountants. The paper is a qualitative research, based upon the most relevant literature on this topic. We would like to highlight the lack of significant academic sources regarding the cloud accounting model. Although these technologies have been known to practitioners for some years, very few papers have been written in this respect. Hence, the literature on this subject is mainly built on practitioners' studies and handbooks, examines conducted by specified research companies or by cloud service developers. The article is adopting the cloud accounting paradigm from a business-oriented interpretation, and does not intent to support an exhaustive or a technical outlook. Further research could cover other economic implications and effects generated by this mentality shift. The evolution to the cloud is only just beginning. It might become the fundamental factor for restructuring our reality and redefining globalization as we know it. If accountants give technology the chance to prove its value, the accounting profession could finally act as a worldwide consistent entity and take businesses to the next level of efficiency.

References

- CCH. Cloud Computing - A matter of survival for the accounting industry. CCH Research Report. 2013. Available at:http://www.cchifirm.com/why_ifirm/cloud-computing-and-the-accounting-industry
- Clear Books. How cloud accounting software is changing the business model of accounting firms. 2014. Available at:<http://www.clearbooks.co.uk/themes/ClearBooks2013/images/ClearBooks/accounting-software-business-model.pdf>
- Ernst & Young. Cloud computing issues and impacts. Global Technology Industry Discussion Series. 2011
- Horton W. Beyond Horseless – Carriage Thinking. William Horton Consulting. 2000
- Kinkela K., College I. Practical and ethical considerations on the use of cloud computing in accounting. Journal of Finance and Accountancy. 2013. Available at:
<http://www.aabri.com/manuscripts/131534.pdf>



A COMPARATIVE STUDY ON DIRECT AND INDIRECT TAX REFORMS IN INDIA

By

Prof. Milin Danak

Department of Commerce, Shree Meghmani Parivar and Shree Bhailalbhai A. Patel(Detrojwala)
Umiya Arts and Commerce College for Girls,Sola, S.G.Highway, Ahmedabad.

Abstract

This study presents a comparative investigation of direct and indirect tax reforms in India over the past few years. The study examines the evolution, impact, and effectiveness of these reforms in shaping India's economic landscape. By exploring key policies, challenges, and outcomes associated with both tax systems, the study provides insights into how tax reforms have influenced economic growth, revenue generation, and fiscal policies. The comparative approach objects to assess the strengths and weaknesses of direct and indirect taxation in promotion economic growth, equity, and administrative efficiency. This inclusive analysis contributes to a deeper understanding of the dynamics of tax reform in India and its broader implications for the economy. After a decade-long journey, India's Goods and Services Tax (GST) finally has been implemented, effective July 1, 2017. The GST, which is essentially a destination/consumption-based tax, replaces of the world's most complicated origin-based indirect tax systems. This complexity often resulted in a cascading effect of tax upon tax.

Keywords: Tax Reforms, Revenue Generation, Administrative Efficiency, Economy Growth

Introduction

SMEs and small taxpayers have benefitted from the GST system with a number of relaxations. This tax reform will lead to creation of a single national market, common tax base and common tax laws for the Centre and States. Another very significant feature of GST will be that input tax credit will be available at every stage of supply for the tax paid at the prior stage of supply. This feature would moderate pouring or double taxation in a major way. This tax reform will be supported by wide use of Information Technology through Goods and Services Tax Network (GSTN), which will lead to greater simplicity in tax burden, accountability of the tax administrations of the Centre and the States and also improve compliance levels at abridged cost of compliance for taxpayers. Studies indicate that introduction of GST would instantly spur economic growth.

Statement of the Problem

Every major Reform in India trends to be historic when it comes to be. The focus this year is on long term Capital Gains Tax. There is the argument that the combination of lower interest rates and Capital Gain Tax basis investment and growth. Goods and Services Tax (GST) replacing multiple taxes the stage is now open for similar move on direct taxes. In direct taxes, corporate tax and Income tax account for 51% of the total Revenue. The chance of interest rate reduction is now remote with inflation edging beyond tax reduction will encourage higher investment.

Objectives

The present study is carried out with the following objectives:

1. To study various aspects of Tax Reforms system in India and to analyze the aspects of Tax Reforms in developed countries.
2. To examine response from the experts regarding implementation and administration of Tax Reforms
3. To analyze the current Tax Reforms and its impact of administration of Direct Tax and Indirect Tax.
4. To study the Problems and Prospects of administration of the Proposed Tax Reforms in the years to come.



Scope of the Study

The Present study analyses the Impact of Direct and Indirect Tax Reforms in India. The study gives some valuable information to India tax system, that they can help to improve Economic Development as well Growth of India. Review of Literature Das Gupta et al (1995) reported that collection of income taxes is very low during the years 1979-1990 covering about 2.2% of GDP with an average per capita income below 35 dollars. He also analyzed empirically the compliance development over time and found that compliance declined. Over the period 1970-1990 controversy to the positive trend of the income tax revenue. An increase in the average tax rate reduced tax compliance on the other hand, tax cuts done in 1975 and 1985 went in line with a higher compliance. Interestingly they found the prosecution activities are ineffective for increasing compliance. Nagma Shadab (2011) the study mainly focused in Goods and Services Tax (GST) is a broad based and a single comprehensive tax. In this tax levied of various level of products. This tax contributing chain of product is applicable. Khalid Mohmodlodhi et al (2013) examine this study impact of capital gains tax on stocks investment in Pakistan. Whenever there is an increase the value of capital asset realized over its cost it is termed to as capital gain and tax imposed on these is called capital gain tax.

The study find out that levy of capital gain tax results in lower volume of stock investment and lesser growth in assets and securities whereas the revenues have also declined as more investments have declined due to the fears of documentation of small investors by the tax authorities. Jai prakash (2014) in this study focused on augmentation over the existing union excise duty at the central level and over the sale tax at the state level while GST is a further enhancement over the existing VAT which is yet to be implemented most probably in the coming financial year as promise made by our union finance minister. The new GST will ensure the greater uniformity in the tax rates throughout the country and will end the cascading effects. The objective of this paper is to trace the growth of India's tax reforms from origin-based CST to a proposed destination based GST.

Monika Shearwater (2015) this study examine GST is one of the most crucial tax reforms in India. Which has been long pending. It was supposed to be implemented from April 2010, but due to political issues and conflicting interest of various stakeholders it is still pending. It is a comprehensive tax system that will subsume all indirect taxes of states and central government and unified countries economy into a seamless national market. It is expected to iron out wrinkles of existing indirect tax system and a vital role in growth of India. This paper present an overview of GST Concept, explains its features along with its time line of implementation in India.

Reforms of Direct Exemptions

High rates are a recipe for low tax compliance. A lower rate for lower incomes and high rates for higher incomes will ensure better balance. The doorstep for income tax needs to be revised periodically to counter the effects of inflation. An overabundance of exemptions and deductions, adding to lawsuit on these, needs to be removed. For individuals, there should be simple formula for net income taxation. Assuming gross income from all sources is Rs. 1000; allow 35% for savings, 32.5% of the remaining for consumption. Limit 35% for investments in assets for future business growth. Hence income chargeable to tax is 71.5%. For individuals, those earning less than Rs 5 lakh need not be taxed. Those between this floor and Rs 10 lakh should be taxed at 5%, while income between Rs 10 lakh and Rs 1 core should be taxed at 10%. The next slab till Rs 10 core should see 15% tax. Anything above that would be taxed at 20%. For corporate, rate should be 10% up to Rs 100 core of chargeable income and 15% between that floor and Rs 500 core. The next slab up to Rs 1,000 core should be taxed 20%. Those above 1,000 core should be taxed at 25%. standards, tax authorities should not have any discretion to review the basis of accounting. This will ensure avoidance of unnecessary legal disputes.



Components of Goods and Services Tax (GST)

There are 3 taxes applicable under this system: CGST, SGST & IGST.

- **CGST:** Collected by the Central Government on an intra-state sale (Egg: transaction happening within Gujarat)
- **SGST:** Collected by the State Government on an intra-state sale (Eg: transaction happening within Gujarat)
- **IGST:** Collected by the Central Government for inter-state sale (Egg: Rajasthan to Gujarat). Destination-Based Consider goods manufactured in Rajasthan and are sold to the final consumer in Gujarat. Since Goods & Service Tax is levied at the point of consumption.

Benefits of Tax Reforms

- One of the most immediate benefits business owners will notice the new tax code is a decrease in the corporate tax rate from 35 % to 21%, which came into effect on January 1 2018.
- As any business owner knows, the costs of starting a new business can be astronomical, so it should come as a great relief that this burden will be somewhat mitigated in the next fiscal year.
- Other changes that business can take advantage of involve expenses that they can write off in order to save even more money on taxes. This includes the full cost of law equipment, interest paid on loans and charitable contributions. Tax cuts and jobs act increases the amount of money than can be written off for these expenses and protects these write offs from being rescinded in the future.

Delimitations of Tax Reforms

1. The Most pressing piece of bad news that comes with this tax cut is an increase in the government deficit according to the tax foundation, fully implementation these changes to the tax code will result in a loss of approximately decade.
2. While optimists believe that his loss of revenue will be offset by increased economic grow is based on conjecture and may be subject to change what won't change is the loss in revenue,
3. This exact scenario was observed during the financial crisis after 2007. When the housing bubble burst. Over the subsequent three years, bank loans to businesses decreased at a rate disporporatinace to all firms by around 10%.
4. A lot of link has been spilled about the tax cuts and jobs act, with some praising the legislation and many others condemning it. Only time will tell whether this decision was good or bad. The best course of action for business looking to reap the benefits of this tax reforms is to excide confidence. Confidence is the number once driver of Economic Growth with a confident government working well with confident. Business to increase confidence in consumers.
5. Hoping and planning for the best seems to be the best way to make the most out of this exciting and polarizing event.

Recommendation

The Direct and Indirect Taxes are mainly income generating source of every country. One country focusing on Tax is proper manner that country is Economically Developed. Tax Evasion and avoid also reduce to be support to tax administration. Goods and Services Tax (GST) is the benefit to micro, small and medium enterprise are now less dependent on tax experts when compared to the earlier regime, due to a simplified return on filing system in place. This Tax Reform will lead to creation of a single market or



common market tax laws, for the central and states. Technology is main supported by extensive use of Tax Reforms of India. It is compliance levels at reduce cost of compliance of Tax payers automatically increase of Economic and also improve the GDP growth.

References

- Das Guptaeta (1995)"Implementation oftheGoodsand Services Tax(GST)In the Singapore Construction Industry", Journal of Property Finance, Vol-5, Iss- 3, Pp-41 – 58
- Nagma Shadab (2011) Goods And Services Tax (GST) In India: Prospect For States” Vol-4, Iss-1, Pp-38-64.
- Khalid Mohmoed lodhiet al(2013)),”ElementsofComplianceCosts:Lesson from Malaysian Companies towards Goods And Services Tax (GST)”, Canadian Center of Science And Education, Vol-9, Iss- 11, Pp-153-147.
- Jai prakash (2014) “The Impact of the Goods and Services Tax on Mortgage Costs: Evidence From Australian Mortgage Corporations”, International Journal of Financial Research, Vol-4, Iss-1, Pp-54-6.
- Monika Shearwater (2015) GST in India: A Key Tax Reform, International Journal of Research – Granthaalayah, Vol.3, Iss.12, Pp-133-141.
- SulkantaSarkarRajib Mulik- TaxReforms Demonetizationand cashlessEconomy Strategyfor Economic Development of India.
- Union Budget 2025-26.
- World Bank Data base -World Development Indicators & Global Development Finance.



ENHANCING SHAREHOLDERS' VALUE CREATION THROUGH DUPONT ANALYSIS: A COMPREHENSIVE APPROACH TO FINANCIAL PERFORMANCE OF SELECTED IT COMPANIES OF INDIA

By

Memon Salina Mahammadiqbal

Ph.D. Scholar

S.D. School of Commerce, Gujarat University, Ahmedabad, Gujarat.

Abstract

This study analyzes the Shareholders' value of 10 IT companies of India for 5 years from the year 2020 to 2024. The objective of the study is to analyze Shareholders' value creation of selected IT companies using ROE in Dupont model and to study the impact of Net profit margin, Equity Multiplier and Asset Turnover Ratio on Return on Equity. The findings reveal that Oracle has the highest profitability but lower asset efficiency, while TCS demonstrates a balanced performance with the highest ROE and strong asset turnover. Conversely, Tech Mahindra records the lowest ROE and profitability, indicating weaker financial performance. The results indicate a strong predictive power of the model suggesting that 89.8% of the variation in ROE is explained by NPM, EM, and ATR. Among the predictors, NPM has the highest influence ($\beta = 1.021$), followed by EM ($\beta = 0.793$) and ATR ($\beta = 0.404$). These findings highlight that profitability and financial leverage are the most significant drivers of ROE while asset utilization plays a lesser role. The study provides valuable insights for investors and financial analysts, emphasizing the importance of maintaining strong profit margins and effective leverage management to enhance shareholders' value creation.

Keywords: Shareholders' Value Creation, Return on Equity, Net Profit Margin, Equity Multiplier, Asset Turnover Ratio

Introduction:

Shareholder value creation refers to the process of increasing the financial worth of a company for its shareholders. It is a key concept in corporate governance and strategic management, where the primary objective of a business is often framed as maximizing the wealth of its shareholders over the long term. In today's competitive business environment, shareholders are constantly seeking ways to maximize their returns on investment. One of the most effective tools for assessing and improving shareholders' value is the DuPont analysis. Developed by the DuPont Corporation in the 1920s, this financial performance framework dissects the key drivers of Return on Equity (ROE) into three main components: Net Profit Margin, Equity Multiplier and Asset Turnover Ratio. By analyzing these components, businesses can gain valuable insights into their operational efficiency, profitability, and financial leverage, all of which directly impact shareholder value.

The Indian Information Technology (IT) sector has emerged as a key driver of economic growth, contributing significantly to the country's GDP and employment. With increasing globalization and digital transformation, IT firms are continuously striving to optimize their financial performance and enhance shareholders' value. Given the competitive nature of the industry, financial performance assessment through DuPont Analysis becomes essential to identify the key drivers of profitability and efficiency in these companies.

Ultimately, this analysis provides a roadmap for enhancing shareholders' value through targeted financial strategies. It is a powerful tool for investors, financial analysts, and corporate managers who aim to ensure sustainable growth and maximize returns for shareholders. This study aims to explore



how DuPont analysis can be effectively used to drive shareholders' value creation and offer practical insights into its application in the corporate world.

Literature Reviews

The following literature reviews explore the evolution of DuPont analysis and its application in enhancing shareholder value creation, offering insights from both theoretical and practical perspectives.

Sriram, M. (2020) The study on determinants of Return on Equity was undertaken for BSE 500 companies for a period of three years viz., 2015-2018. DuPont model was used for the study. The dependent variable was return on equity and the independent variables were profit margin, equity multiplier and asset turnover. All the three variables were found to be significantly influencing return on equity. The study found that profit margin was the most significant variable which differentiated top performers from the rest of the companies.

Bhagyalakshmi, K., & Saraswathi, S. (2019) They analyzed performance evaluation using DuPont analysis in selected automobile companies through measuring Return on Common Stockholder's Equity. The study was conducted on 10 Automobile companies listed in the NSE. Correlation and regression analysis was done to know whether the relationship among the above variables exists or not and to know the impact of ROA and EM on ROE. Results revealed that there is a positive relationship among all the variables except EM and there is significance difference exists in the financial performance of selected companies with respect to Return on equity and Return on Assets.

M.Pandey & D. Arora (2015) Studied about conceptual and Behavioral aspects of the Shareholder Value Analysis investigated the relationship between management decision and Shareholders' value. The study reveals that all management decisions have their contribution in Shareholders value added. The inter relationship of different decisions with shareholder value which is considered as Shareholder Value Network.

The Evolution of DuPont Analysis

The original DuPont model was designed to help businesses understand how to improve their return on equity through a better understanding of profitability and asset utilization. It has since evolved into a more comprehensive framework, with variations that include additional factors like tax efficiency and financial leverage (Peavler, 2021). The DuPont system was groundbreaking because it provided a clear linkage between operational efficiency, financial leverage, and profitability, which helped managers and investors focus on areas that would lead to superior performance (DuPont, 1920).

Components of DuPont Analysis

- **Net Profit Margin:** The Net profit margin is a measure of a company's ability to generate earnings relative to its sales. Studies have shown that higher profit margins are often associated with better cost control and pricing strategies (Higgins, 1977). Increasing profitability, as indicated by an improved profit margin, directly contributes to higher ROE, which enhances shareholder value.
- **Equity Multiplier:** The equity multiplier reflects a company's financial leverage, or the extent to which a company uses debt to finance its assets. A higher equity multiplier suggests that a company is using more debt in its capital structure, which can amplify returns on equity. However, it also increases financial risk (Brealey, Myers, & Allen, 2011). The impact of leverage



on shareholder value depends on the company's ability to manage debt effectively and ensure that it leads to higher profitability without jeopardizing financial stability.

- **Asset Turnover Ratio:** Asset turnover Ratio measures how efficiently a company uses its assets to generate revenue. Research by Porter (1980) emphasizes the importance of asset management, noting that companies with higher asset turnover rates tend to operate more efficiently, leading to better financial returns. Companies can improve asset turnover by optimizing operations and reducing inefficiencies in production, inventory management, and distribution.

DuPont Analysis in Enhancing Shareholders' Value

Several studies have shown that DuPont analysis plays a critical role in driving shareholder value by identifying areas of improvement. By dissecting ROE into its components, managers can better understand the root causes of high or low performance. For example, **Barger (2014)** found that companies with strong profit margins and efficient use of assets tended to generate superior returns for shareholders. Additionally, **Miller and Modigliani's (1961)** theory of capital structure posits that optimal leverage can enhance shareholder returns, supporting the idea that effective use of financial leverage, as shown by the equity multiplier, can create value for shareholders.

Objectives of the Study

The following are the main objectives of the study

1. To analysed Shareholders' value creation of selected IT companies using ROE in Dupont model.
2. To study the impact of Net profit margin, Equity Multiplier and Asset Turnover Ratio on Return on Equity.

Hypotheses of the study

H₀: There is no significance difference between Net profit margin, Equity Multiplier and Asset Turnover Ratio on Return on Equity.

H₁: There is significance difference between Net profit margin, Equity Multiplier and Asset Turnover Ratio on Return on Equity.

Research Methodology

The present study was conducted for 10 IT listed companies of India. Such as Tata Consultancy Service Ltd, Infosys Ltd, HCL Technologies, Wipro Ltd, Tech Mahindra, LTIMindtree Ltd, Oracle financial Services software Ltd, Persistent Systems Ltd, Coforge Ltd and Mphasis Ltd. Data is collected for a period of 5 years between 2020 and 2024. Secondary data was gathered from Annual report of selected companies. The data was collected, edited, coded and fed into excel before being imported to SPSS for analysis. Descriptive statistics was used in terms of mean and standard deviation. To study the impact of Net profit margin, Equity Multiplier and Asset Turnover Ratio on Return on Equity was done through Multiple regression in order to examine the influence of independent variable on the dependent variable of the selected IT companies.

Data Analysis and Interpretation

Following are the result of Descriptive statistics and Multiple Regression Analysis.

Descriptive statistics

Descriptive statistics is a branch of statistics that focuses on summarizing, organizing, and presenting data in a meaningful way. It provides simple summaries and visual representations of data



Mean (Average): Sum of all values divided by the total number of values. **Standard Deviation:** The square root of variance, showing how much values deviate from the mean on average.

Table- 5.1: Results of Descriptive Statistics:

Companies	N	Net profit Margin (%)		Assets Turnover Ratio (x)		Equity Multiplier (x)		Return on Equity (%)	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
TCS	5	22.7980	1.88167	1.4740	.18582	1.4800	.11467	49.5820	7.03735
Infosys	5	20.1960	.99002	1.1080	.11432	1.3740	.09072	30.7640	4.96846
HCL	5	25.5500	1.45619	.7960	.10213	1.2860	.02881	26.0220	2.91506
Wipro	5	16.9560	3.30113	.7960	.02510	1.4240	.03782	19.1860	4.02908
Tech m	5	11.5580	4.44211	1.0740	.12621	1.3980	.04494	16.7180	4.99662
LTImindtree	5	14.5680	1.26814	1.4680	.14412	1.4500	.04062	31.0160	4.48906
Oracle	5	44.0780	2.00108	.6580	.04604	1.1260	.01342	32.5300	2.02010
Persistent	5	17.8960	2.42071	1.0060	.17799	1.2220	.06834	21.6540	2.36435
Coforge	5	17.2180	4.22406	.9700	.09165	1.5780	.12558	26.9240	8.95987
Mphasis	5	19.0620	5.19058	1.1360	.18147	1.4460	.05273	30.2700	3.01414

The above table no. 5.1 provides insights into how well each IT company manages profitability, asset efficiency, financial leverage, and shareholder returns for 5 years from 2020 to 2024. Below are the key interpretations:

- **Top Performers:** Oracle emerges as the most profitable company with the highest Net Profit Margin (44.08%), coupled with low variability, indicating strong and stable earnings. However, its Sales/Total Assets ratio (0.658) is the lowest, suggesting lower asset utilization efficiency. TCS stands out as a well-rounded performer with high ROE (49.58%), strong Sales/Assets efficiency (1.474), and solid Net Profit Margin (22.79%), making it a consistent market leader. HCL and Infosys also perform well with stable profit margins, balanced asset utilization, and moderate ROE, indicating financial stability.
- **Moderate Performers:** Wipro, LTImindtree, and Mphasis Ltd demonstrate moderate profitability and efficiency. However, Mphasis Ltd shows high variability, suggesting some inconsistency in performance. LTImindtree remains stable but does not lead in any key metric.
- **Weaker & Volatile Performers:** Tech Mahindra consistently ranks among the lowest performers in Net Profit Margin (11.55%), ROE (16.71%), and Sales/Assets ratio (1.074), indicating weak profitability and inefficient asset utilization. Coforge Ltd and Persistent exhibit high variability, meaning their performance is less predictable. Coforge Ltd, in particular, has a high leverage ratio, suggesting increased risk.

Oracle & TCS are the strongest overall, combining profitability, efficiency, and stability. Infosys & HCL offer steady but slightly lower performance compared to TCS. Mphasis, Wipro, and Coforge show fluctuations, indicating some risk. TechM appears to be the weakest performer, struggling with low profitability and inconsistent returns.

Multiple Regression Analysis

Regression Analysis used to explain the variations in one variable- usually called the Dependent variable-by a set of independent variables. It identifies nature of the relationship. The number



of independent variables in regression analysis could be one or more and hence it is called Multiple Regression analysis.

Table- 5.2: Variables and their Formulas

Financial Variables		Formula
Independent Variables	Net Profit Margin	NPM= Net profit/ Total sales
	Equity Multiplier	EM= Total Assets/ Shareholders' equity
	Asset Turnover Ratio	ATR= Total sales/ Total assets
Dependent Variables	Return on Equity	ROE= Net Profit/ Shareholders' equity

The above table no. 5.2 shows the selected dependent and independent variables for analysis.

The estimated model is listed below:

$$ROE = \beta_0 + \beta_1 * NPM + \beta_2 * EM + \beta_3 * ATR + \epsilon_{it}$$

Table- 5.3: Summary of the Result of Multiple Regressions

MODEL	R	R Square	Std. Error of the Estimate	F	Sig	Durbin-Watson
1	0.947	0.898	3.25461	134.270	0.000	0.592

The above table no. 5.3 shows the results of the multiple regression analysis. it indicates a strong relationship between Return on Equity (ROE) and its predictors: NPM, EM, and ATR. The R-value of 0.947 suggests a very strong correlation between the independent variables and ROE, while the R² value of 0.898 indicates that 89.8% of the variation in ROE is explained by NPM, EM, and ATR. This demonstrates that the selected financial ratios are highly influential in determining a firm's profitability. The F-statistic of 134.270 with a significance level (p-value) of 0.000 confirms that the overall regression model is statistically significant, meaning that the independent variables collectively have a meaningful impact on ROE. The standard error of the estimate (3.25461) suggests that the predicted values of ROE, on average, deviate by this amount from the actual values. However, the Durbin-Watson statistic of 0.592 raises concerns regarding positive autocorrelation in the residuals.

Table- 5.4: Coefficients^a

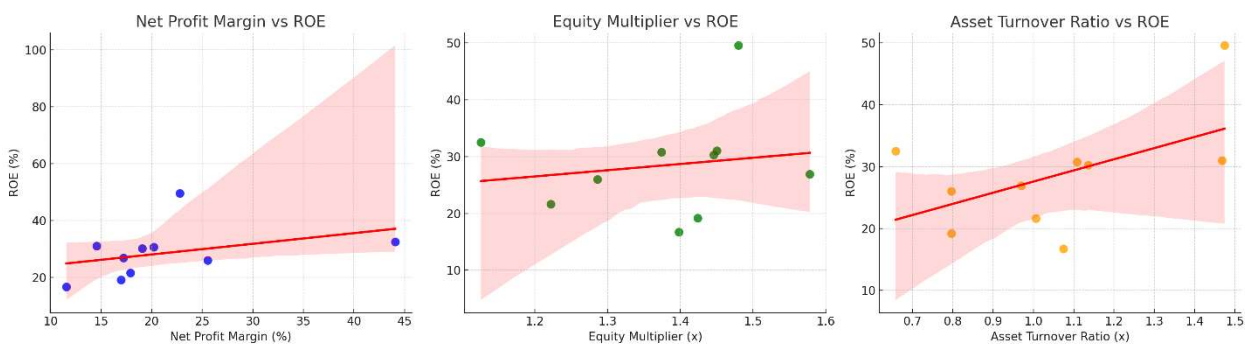
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-62.066	6.542		-9.487	.000
	NPM	1.109	.066	1.021	16.792	.000
	EM	27.453	2.063	.793	13.305	.000
	ATR	27.911	4.458	.404	6.261	.000

The above table no. 5.4 shows the unstandardized and standardized coefficients for each predictor, as well as their significance in the regression model. The estimated regression equation (ROE=-62.066+1.109×NPM+27.453×EM+27.911×ATR+ ε) suggests that these financial ratios significantly influence ROE. The NPM coefficient (B = 1.109, p = 0.000) implies that a 1% increase in profitability raises ROE by 1.109%, showing the direct effect of profit margins on shareholder returns.



The EM coefficient ($B = 27.453$, $p = 0.000$) indicates that financial leverage significantly boosts ROE, meaning firms with higher leverage tend to generate greater returns. Likewise, the ATR coefficient ($B = 27.911$, $p = 0.000$) suggests that higher asset efficiency contributes to improved profitability. All independent variables are statistically significant ($p = 0.000$), confirming their strong impact on ROE. Among them, EM has the highest influence ($\beta = 0.793$), followed by ATR ($\beta = 0.404$) and NPM. However, the low Durbin-Watson statistic (0.592) raises concerns about possible autocorrelation, which requires further diagnostic testing.

Chart- 5.1: Scatter plots with regression lines



The above Chart no. 5.1 shows the scatter plots with regression lines showing the relationships between Return on Equity (ROE) and its predictors:

- Net Profit Margin (NPM) vs ROE – Strong positive correlation; higher NPM leads to higher ROE.
- Equity Multiplier (EM) vs ROE– Significant positive relationship, confirming that leverage impacts ROE.
- Asset Turnover Ratio (ATR) vs ROE – Positive impact, but not as strong as NPM or EM.

Thus, above analysis shows that NPM, EM, and ATR all positively influence ROE. Among these, NPM has the strongest impact on ROE, followed by EM and ATR. All the predictors are statistically significant, with very low p-values (0.000), indicating strong evidence against the null hypothesis. Therefore, the null hypothesis that these variables do not significantly predict ROE can be rejected.

Conclusion

TCS is the most balanced company, excelling in ROE, profitability, and asset efficiency. Oracle is highly profitable but inefficient in asset turnover, likely due to a different revenue model. Tech Mahindra and Wipro struggle with profitability and efficiency, requiring strategic improvements. Coforge and LTIMindtree have higher financial leverage, meaning higher potential returns but increased risk. Oracle maintains a conservative financial structure, ensuring stability over aggressive growth. The multiple regression analysis demonstrates that Net Profit Margin (NPM), Equity Multiplier (EM), and Asset Turnover Ratio (ATR) significantly influence Return on Equity (ROE). The model exhibits a strong fit ($R^2 = 0.898$), explaining 89.8% of the variance in ROE, and is statistically significant ($F = 134.270$, $p = 0.000$). Among the predictors, NPM has the strongest impact on ROE ($\beta = 1.021$), indicating that profitability plays a crucial role in enhancing shareholder returns. EM also contributes positively ($\beta = 0.793$), suggesting that increased financial leverage improves ROE, while ATR has a smaller yet significant impact ($\beta = 0.404$), reinforcing the importance of asset efficiency. Overall, the findings highlight that improving profitability, leverage, and asset efficiency can drive higher ROE,



making them key focus areas for financial decision-making and shareholders' value creation. and improving profitability (NPM), leveraging financial resources (EM), and enhancing asset efficiency (ATR) can significantly boost ROE.

References

- Bhagyalakshmi, K., & Saraswathi, S. (2019). A study on financial performance evaluation using DuPont analysis in select automobile companies. *International Journal of Management, Technology and Engineering*, 9(1), 354-362.
- Bhardwaj, N., & Rao, P. (2018). Financial performance analysis of Indian IT companies: A DuPont model approach. *International Journal of Financial Studies*, 6*(2), 45-59.
- Sriram, M. (2020) Determinants of RoE using DuPont Analysis-A Study of BSE 500 companies.
- Pandey, M., & Arora, D. (2015). Shareholder Value Analysis: A Review. *International Journal of Science and Research*, 4(5), 2129-2132.
- Soliman, M. T. (2008). The use of DuPont analysis by market participants. *The Accounting Review*, 83*(3), 823-853.
- Barger, R. (2014). Return on Equity and Corporate Performance. *Journal of Financial Analysis*, 39(4), 112-125.
- Brealey, R., Myers, S., & Allen, F. (2011). *Principles of Corporate Finance*. McGraw-Hill.
- Chen, G., & Lee, C. (2010). The Role of DuPont Analysis in Financial Decision Making. *Corporate Finance Review*, 15(3), 45-56.
- Cohen, J., & Cohn, D. (2011). Addressing Autocorrelation in Financial Data. *Financial Research Journal*, 23(2), 80-93.
- DuPont. (1920). DuPont and the Development of the ROE Framework. *Journal of Business*, 5(2), 3-12.
- Fraser, L., & Ormiston, A. (2016). *Understanding Financial Statements*. Pearson Education.
- Higgins, R. (1977). *Analysis for Financial Management*. McGraw-Hill.
- Kaplan, R., & Norton, D. (1992). *The Balanced Scorecard: Measures That Drive Performance*. Harvard Business Review, 70(1), 71-79.
- Kaplan, R., & Norton, D. (1996). *The Strategy-Focused Organization*. Harvard Business School Press.
- Miller, M., & Modigliani, F. (1961). Dividend Policy, Growth, and the Valuation of Shares. *Journal of Business*, 34(4), 411-433.
- Porter, M. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press.

**PROFITABILITY ANALYSIS OF SELECTED PETROLEUM REFINERIES IN INDIA**

By

Chirag V. Ram

Research Scholar

Kadi Sarva Vishwavidyalaya University, Gandhinagar, Gujarat

&

Dr. Jignesh J. Patel

Asst. Professor (HOD)

Ashvinbhai A. Patel Commerce College, Gandhinagar, Gujarat.

Abstract

Petroleum refinery increases refinery capacity and India is also focusing on building planned petroleum reserves to ensure energy security. New reserves are being planned and existing petroleum refineries are being planned expanded. In this study Analysis the profitability of selected petroleum refineries in India like BPCL (Bharat Petroleum Corporation Limited), HPCL (Hindustan Petroleum Corporation Limited), IOCL (Indian Oil Corporation Limited), Oil and Natural Gas Corporation (ONGC), And Chennai Petroleum Corporation Limited(CPCL) for the study or the period of 2019 -20 to 2023-2024 using profitability ratio analysis statistical tool that uses a one-way ANOVA test with a 5% significance level. As Hypotheses study examine there is no Signiant deference significant difference between Operating Profit Margin Ratios, Gross Profit Margin, Net Profit Margin, Return on Net Worth (RONW), Return on Capital Employed (ROCE), Return on Assets (ROA), in selected petroleum refineries in India, included in the main conclusions of the study, ONGC (Oil and Natural Gas Corporation) is showing good performance and Chennai Petroleum Corporation Limited needs to improve its performance.

Keywords: Profitability Ratio, Gross Profit Margin(GP), Return on Assets (ROA), Net Profit Margin(NP), Return on Net Worth (RONW), Return on Capital Employed (ROCE), Operating Profit Margin and Petroleum Refineries

Introduction

After the pandemic Indian Economy growing firstly, and demanding crude oil petrol diesel, and natural gas, Bharat Petroleum Corporation Limited (BPCL) plans to increase its capital expenditure by 42% to ₹18,500 crore for the fiscal year 2025-26. This significant investment will focus on growing the company's refining and petrochemical capacity. Oil and Natural Gas Corporation (ONGC) and Indian Oil (IOL) maintain similar expanse levels, while GAIL plans to reduce its expanse. Overall, state-run oil companies' investments in petrochemicals will see a small drop.

Indian Oil Corporation (IOC) plans to increase its refineries in Barauni, Gujarat, and Panipat by the end of December 2025. These developments, which face hold up due to global events such as the Ukraine crisis and the COVID pandemic, will significantly improve the refineries' capacities. mostly, the Barauni refinery's capacity will increase to 9 MMTPA, the Panipat refinery will increase in capacity to 25 MMTPA, and the Gujarat refinery will reach 18 MMTPA.

BPCL make plans to invest \$ 11 billion dollars in a new refinery and petroleum project in Andhra Pradesh(AP) to meet the rising fuel demand and position India as a significant refining hub. This investment lines up with India's aim to grow into a developed country by 2047, with a mostly increase in primary energy demand and GDP.

Chennai Petroleum Corp Ltd plans to build a 1,80,000 barrels per day (bpd) refinery at Nagapattinam in Tamil Nadu by the end of 2027, delayed by two years from the complete target. The



joint venture, with Indian Oil Corp holding a 75% stake, is waiting for government approval for a new equity layout. The project cost has been revised to about ₹36,400 crores (\$4.36 billion), with 66% invested via debt.

India the third largest refinery feeder country in the world today has a refining capacity of 256.8 MMTPA as of April 2024, this puts India as the second largest in Asia. There are 22 operational refineries in the country, and 34.3% of the capacity is held by private firms. Major expansions include the Cauvery Basin Refinery (1 to 9 MMTPA), Numaligarh Refinery (3 to 9 MMTPA), and HPCL Rajasthan Refinery (planned 9 MMTPA).

As of see petroleum refinery increases refinery capacity and India is also focusing on building strategic petroleum reserves to ensure energy security. New reserves are being planned and existing petroleum refinery are being expanded

Literature Review

S. Revathy, Dr. V. Santhi (2016) - researcher reviewed the impact of capital structure on profitability of the manufacturing companies in India and researcher also tried to show the suggested relationship between capital structure variables and profitability as well as the way in which they influence business revenue. According to this study, the capital structure variable and profitability have a strong one-to-one relationship, and the growth of the debt-to-equity ratio has a negative impact on the profit of manufacturing companies listed on the Stock Exchange of Bombay in India.

Partha Ghosh (2018)- The Researcher has reviewed that this study of comparative financial performance between two selected oil refineries in India like BPCL and HPCL for a period from 2005 to 2018. Observing and testing the inter-firm comparison is another of its goals. The objective of this research is to determine whether or not there were any notable variations in the sample firms' financial standing and performance across the study period. Significant findings were drawn using statistical methods including mean and variance as well as the F test hypothesis. The financial performance of two chosen oil refineries does not significantly differ, according to the researchers' findings.

Priyanka D. Meghanathi and Alok Kumar Chakrawal(2021) - have conducted a Study on An Analytical Study of Liquidity and Profitability: An analysis of Selected Oil and Gas Companies in India for the period of 2016-17 to 2020-21.the researchers analyzed sample Reliance, ONGC, IOCL, BPCL and GAIL with Current Ratio, Quick Ratio, Net Profit Ratio, Return on Capital Employed, and One-Way ANOVA as Statistical Tools and conclude that no significant difference in Current Ratio and return on capital employed ratio.and thar significant difference in Quick and Net Profit and overall GAIL has the best average liquidity, while ONGC has the lowest during the study period

Durga Pada Mal, Dr Parimalendu Bandyopadhyay(2024) has conducted a study on the liquidity and profitability of a chosen cement sector in India This research discusses the secondary data analysis and understanding of various of liquidity and profitability ratios for the period 2009-10 to 2019-20. It was discovered that The study employs statistical tools like averages, standard deviations, and percentages of select ratios. The Spearman Rank Correlation Coefficient assesses the correlation between Motaal Liquidity Rank and ROCE Rank. The Shapiro-Wilks W test confirms data normality. These analyses help understand of their relationship and significance.

Problem of statement

Petroleum refinery has increased capacity after 2021, Is it true that with increasing demand, there is also an increase in profitability and profit stability? In This study research examines the profitability of selected Indian petroleum refineries.



Objectives of the study

The researcher Examines Profitability Ratios like Operating Profit Margin, Gross Profit Margin, Net Profit Margin, return on Net Worth (RONW), and Return on Capital Employed, (ROCE) Return on Assets (ROA), and ANOVA for the period of 2019 -20 to 2023-2024. The Researcher selected as Sample major petroleum refineries in the Indian market like BPCL (Bharat Petroleum Corporation Limited), HPCL (Hindustan Petroleum Corporation Limited), IOCL (Indian Oil Corporation Limited), ONGC (Oil and Natural Gas Corporation), And CPCL (Chennai Petroleum Corporation Limited)

Hypotheses of this study

- H0 = There is no significant difference in Operating Profit Margin Ratios in selected petroleum refineries
- H0 = There is no significant difference in Gross Profit Margin Ratios in selected petroleum refineries
- H0 = There is no significant difference in Net Profit Margin Ratios in selected petroleum refineries
- H0 = There is no significant difference in Return On Net Worth Ratios in selected petroleum refineries
- H0 = There is no significant difference in Return on Capital Employed Ratios in selected petroleum refineries
- H0 = There is no significant difference in Return on Assets Employed Ratios in selected petroleum refineries

Analysis and Result

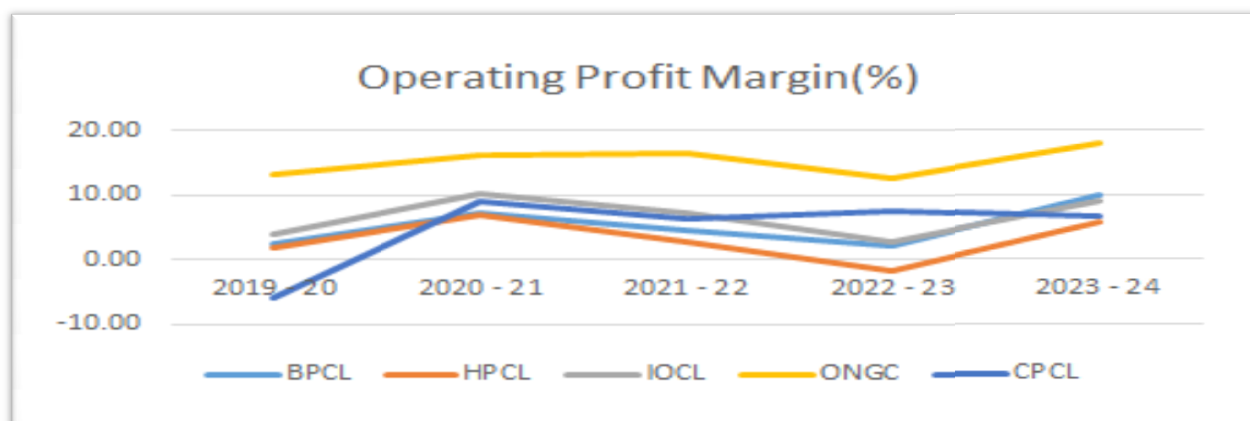
This Study is based on Secondary Data Collected from the Monycontral.com Website for the period of 2019 -20 to 2023-2024. And Analysis Data by one-way ANOVA test using

- **Operating Profit Margin (%)**

Operating Profit = Operating Revenue - Operating Expenses

Table 1

Operating Profit Margin(%)	BPCL	HPCL	IOCL	ONGC	CPCL
2019 - 20	2.33	1.90	3.87	13.13	-5.81
2020 - 21	7.36	6.83	10.06	16.27	8.95
2021 - 22	4.46	2.91	7.22	16.42	6.28
2022 - 23	2.31	-1.70	2.65	12.53	7.42
2023 - 24	9.85	5.72	8.96	17.97	6.74
Mix.	9.85	6.83	10.06	17.97	8.95
Avg.	5.26	3.13	6.55	15.26	4.72
Min.	2.31	-1.70	2.65	12.53	-5.81
Variance	10.85137	11.32207	10.24237	5.42488	35.64443





As summarized in the table, ONGC recorded the highest average operating profit margin during the study period (2019-20 to 2023-24) at an average of 15.26%, with a maximum of 17.97%. In difference, HPCL had the lowest operating profit margin, with a maximum of 6.83% and an average of 3.13%. Additionally, CPCL showed the highest variance in operating profit margin at 35.6444, while ONGC had the lowest variance at 5.42488, ONCG showing stability and the Highest operating profit margin ratio in this study. In 5% level of significance statistical using ANOVA one-way Test getting this Result

Table 1

Source	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P-value	F critical value
Between	458.4601	4	114.6150	7.7985	0.0006	2.8661
Within	293.9405	20	14.6970			
Total	752.4006	24				

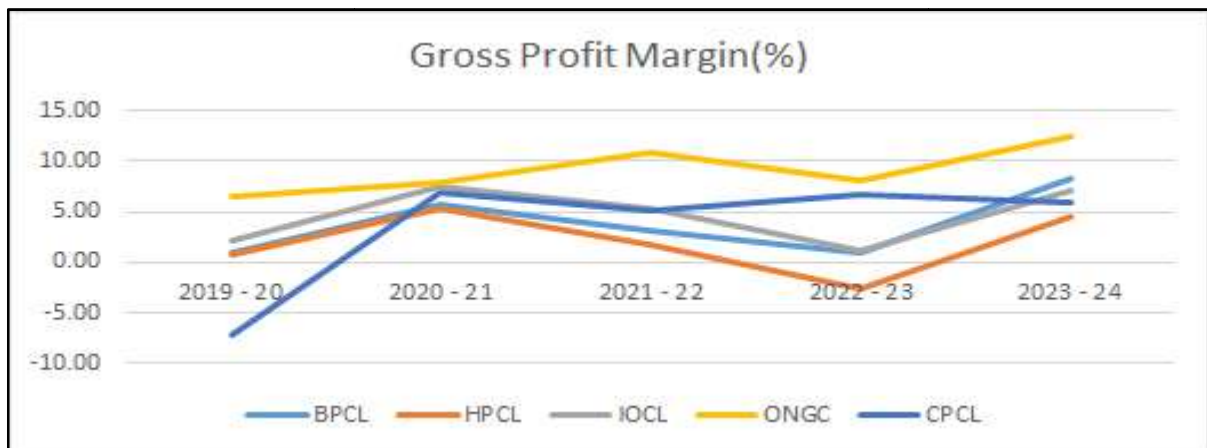
In conclusion from the ANOVA test Table Value of the F ratio is 7.7985 And the F Critical value is 2.8661, The F ratio highest then F Critical Value. Then hypothesis is not accepted there is a significant difference in operating profit margin ratio between selected petroleum refineries, In the chart we can clearly see that ONGC's operating profit margin is not in line with the operating profit margins of other refineries.

• **Gross Profit Margin %**

Gross Profit Margin % = $(\text{Total Revenue} - \text{Cost of goods sold}) * 100 / \text{Total Revenue}$

Table 2

Gross Profit Margin(%)	BPCL	HPCL	IOCL	ONGC	CPCL
2019 - 20	1.00	0.67	2.06	6.41	-7.22
2020 - 21	5.65	5.31	7.47	7.87	6.88
2021 - 22	3.15	1.77	5.38	10.78	5.11
2022 - 23	0.97	-2.69	1.23	8.06	6.67
2023 - 24	8.34	4.44	7.08	12.52	5.82
Mix	8.34	5.31	7.47	12.52	6.88
Avg	3.82	1.90	4.64	9.13	3.45
Min	0.97	-2.69	1.23	6.41	-7.22
Variance	10.0758	10.1694	8.1986	6.0864	36.0887





Analysis of Gross Profit Margin during the study period (2019-20 to 2023-24) The Highest Gross Profit margin Shown by ONGC Maximum is 12.52% and average 9.13%.The minimum Gross Profit margin is negative -7.22% of CPCL 2019-20 And the average Five year lowest Gross Profit margin is HPCL 1.90% And in stability, Variance Then We show minimum Variance Of ONGC 6.0864 it mines ONGC Gross Profit margin maintain Stability And we see Vary high variance 36.0887 of CPCL Its mines lowest Stability in Gross Profit margin of CPCL And Then Second Last highest variance is 10.1694 of HPCL it mines Gross Profit margin Show very unstable in CPCL AND HPCL. In 5% level of significance statistical using ANOVA one-way Test getting this Result

Source	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P-value	F critical value
Between	148.5866	4	37.1467	2.6301	0.0649	2.8661
Within	282.4754	20	14.1238			
Total	431.0620	24				

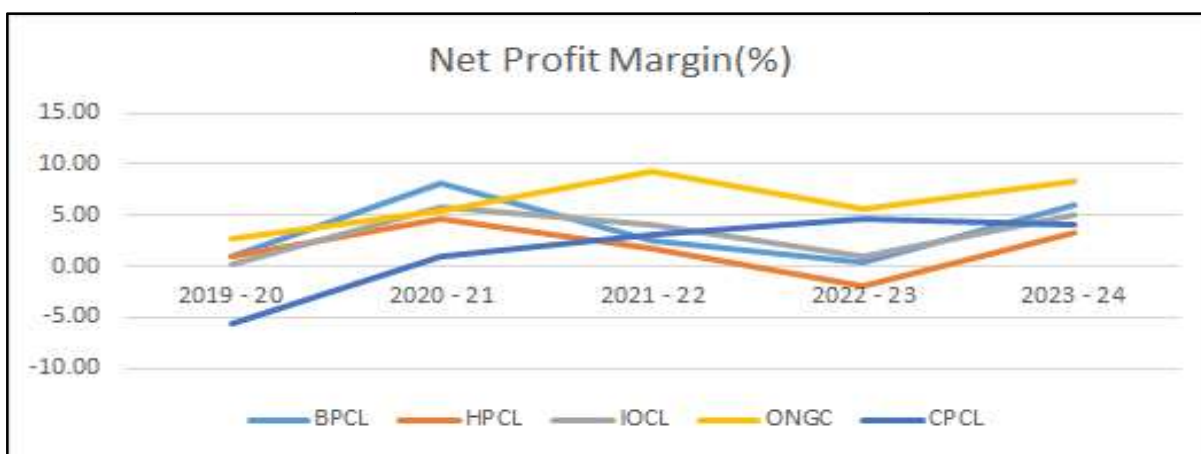
In conclusion from the ANOVA test Table Value of the F ratio is 2.6301 And the F Critical value is 2.8661, The F ratio less then F Critical Value. Then hypothesis is accepted there is a no significant difference in gross profit margin ratio between selected petroleum refineries in India

- **Net Profit Margin (%)**

Net Profit Margin (%) = (Total Revenue - Total Expenses (including operating costs, taxes, interest, and other expenses)) *100/Total Revenue

Table 3

Net Profit Margin(%)	BPCL	HPCL	IOCL	ONGC	CPCL
2019 - 20	0.94	0.98	0.27	2.72	-5.59
2020 - 21	8.18	4.57	5.77	5.34	1.05
2021 - 22	2.42	1.82	4.04	9.26	3.09
2022 - 23	0.39	-2.03	0.98	5.60	4.60
2023 - 24	5.95	3.38	5.11	8.32	4.08
Mix	8.18	4.57	5.77	9.26	4.60
Avg	3.58	1.74	3.23	6.25	1.45
Min	0.39	-2.03	0.27	2.72	-5.59
Variance	11.3170	6.3738	6.1165	6.7641	17.3126



Analysis of Net Profit Margin during the study period (2019-20 to 2023-24) Highest Net Profit margin Shown of ONGC Maximum 9.26% and average 6.25% .Minimum Net Profit margin is negative -



5.59 % of CPCL 2019-20 And the average Five year lowest Net Profit margin is HPCL 1.74% And in stability, Variance Then We show Minimum Variance Of IOCL 6.1165 it mines IOCL Net Profit margin maintain Stability And we see Vary high variance 17.3126 of CPCL Its mines lowest Stability in Net Profit margin of CPCL And Then Second Last highest variance is 11.3170 of BPCL it mines Net Profit margin Show very unstable in CPCL AND BPCL . In 5% level of significance statistical using ANOVA one-way Test getting this Result

Source	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P-value	F critical value
Between	73.0849	4	18.2712	1.9079	0.1485	2.8661
Within	191.5366	20	9.5768			
Total	264.6215	24				

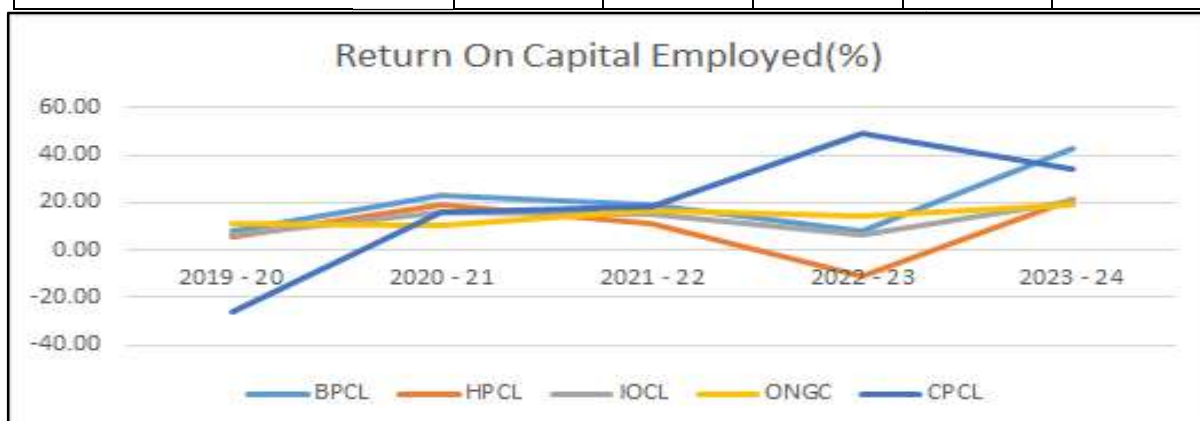
In conclusion from the ANOVA test Table Value of the F ratio is 1.9079 And the F Critical value is 2.8661, The F ratio less then F Critical Value. Then hypothesis is accepted there is a no significant difference in Net profit margin ratio between selected petroleum refineries in India Also We see in chart All selected petroleum refinery Net profit margin ratio in line with Other selected petroleum refinery Net profit margin ratio

- **Return On Capital Employed (ROCE) (%)**

ROCE% = (Earnings Before Interest and Tax (like Operating Profit)) / (Total Capital Employed (like "Total Assets Less Current Liabilities" or "Equity + Long-Term Debt")) * 100

Table 4

Return On Capital Employed(%)	BPCL	HPCL	IOCL	ONGC	CPCL
2019 - 20	8.30	5.42	6.58	11.16	-26.34
2020 - 21	23.08	19.41	15.84	10.05	16.36
2021 - 22	18.77	11.20	15.10	16.45	18.68
2022 - 23	7.73	-10.60	6.22	14.40	48.86
2023 - 24	42.61	21.39	20.35	18.89	34.19
Mix	42.61	21.39	20.35	18.89	48.86
Avg	20.10	9.36	12.82	14.19	18.35
Min	7.73	-10.60	6.22	10.05	-26.34
Variance	202.4016	165.7585	38.3793	13.3906	795.7577



Analysis of Return On Capital Employed ratio during the study period (2019-20 to 2023-24) Highest Return On Capital Employed ratio Shown of CPCL Maximum 48.86% and in average Highest



Return On Capital Employed ratio Showing 20.10% of BPCL .Minimum Return On Capital Employed ratio is negative -26.34 % of CPCL 2019-20 And the average Five year lowest Return On Capital Employed ratio is HPCL 9.36% And in stability, We show Minimum Variance Of ONGC 13.3906 it mines ONGC Return On Capital Employed ratio maintain Stability And we see Vary high variance 795.7577% of CPCL Its mines lowest Stability in Return On Capital Employed of CPCL And Then Second Last highest variance is 202.4016% of BPCL it mines Return On Capital Employed ratio Show very unstable in CPCL AND BPCL . In 5% level of significance statistical using ANOVA one-way Test getting this Result

Source	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P-value	F critical value
Between	371.9367	4	92.9842	0.3824	0.8185	2.8661
Within	4862.7507	20	243.1375			
Total	5234.6874	24				

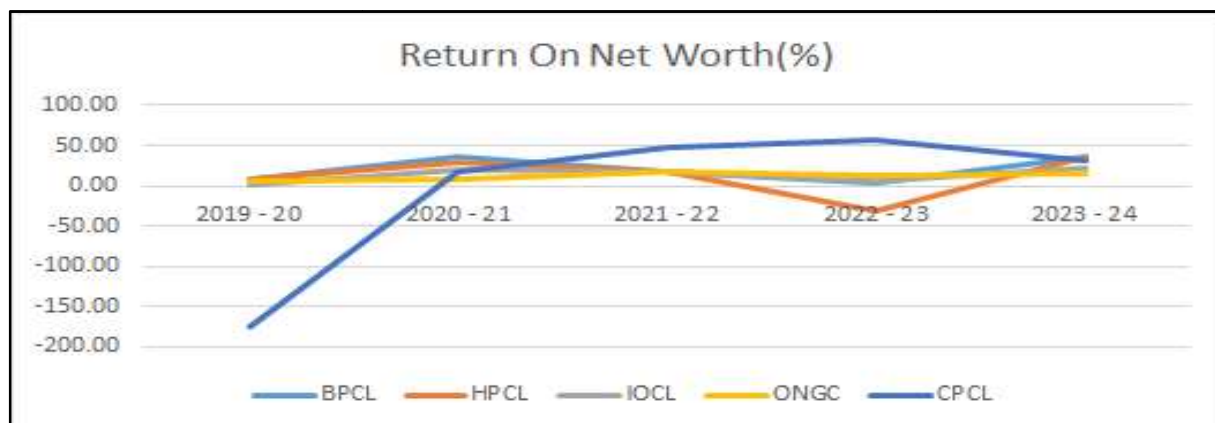
In conclusion from the ANOVA test Table Value of the F ratio is 0.3824 And the F Critical value is 2.8661, The F ratio less then F Critical Value. Then hypothesis is accepted there is a no significant difference in Return On Capital Employed ratio between selected petroleum refineries in India Also We see in chart All selected petroleum refinery Return On Capital Employed ratio in line with Other selected petroleum refinery Return On Capital Employed ratio

- **Return On Net Worth(RONW) (%)**

(RONW)% = Profit after tax (PAT) / (“Total assets - Total liabilities” or “Share Capital + Reserves & Surplus”) * 100

Table 5

Return On Net Worth(%)	BPCL	HPCL	IOCL	ONGC	CPCL
2019 - 20	8.07	9.10	1.40	5.26	-174.25
2020 - 21	35.46	29.46	19.76	7.35	16.67
2021 - 22	17.69	16.50	18.42	17.54	48.11
2022 - 23	3.59	-32.38	6.11	12.62	56.26
2023 - 24	35.71	35.81	22.41	14.60	31.55
Mix	35.71	35.81	22.41	17.54	56.26
Avg	20.10	11.70	13.62	11.47	-4.33
Min	3.59	-32.38	1.40	5.26	-174.25
Variance	225.6777	717.3890	85.9331	25.8757	9255.5706





Analysis of Return On Net Worth during the study period (2019-20 to 2023-24) Highest Return On Net Worth ratio Shown of CPCL Maximum 56.26 % in 2022- 23 and average Highest Return On Net Worth ratio Showing 20.10% of BPCL .Minimum Return On Net Worth ratio is negative -174.25 % of CPCL 2019-20 And the average Five year lowest Return On Net Worth ratio is CPCL -4.33 % And in stability, We show Minimum Variance Of ONGC 25.8757 it mines ONGC Return On Net Worth ratio maintain Stability And we see Vary high variance 9255.5706 of CPCL Its mines lowest Stability in Return On Net Worth of CPCL And Then Second Last highest variance is 717.389 of HPCL it mines Return On Net Worth ratio Show very unstable in CPCL AND HPCL .In 5% level of significance statistical using ANOVA one-way Test getting this Result

Source	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P-value	F critical value
Between	1621.7125	4	405.4281	0.1966	0.9373	2.8661
Within	41241.7842	20	2062.0892			
Total	42863.4967	24				

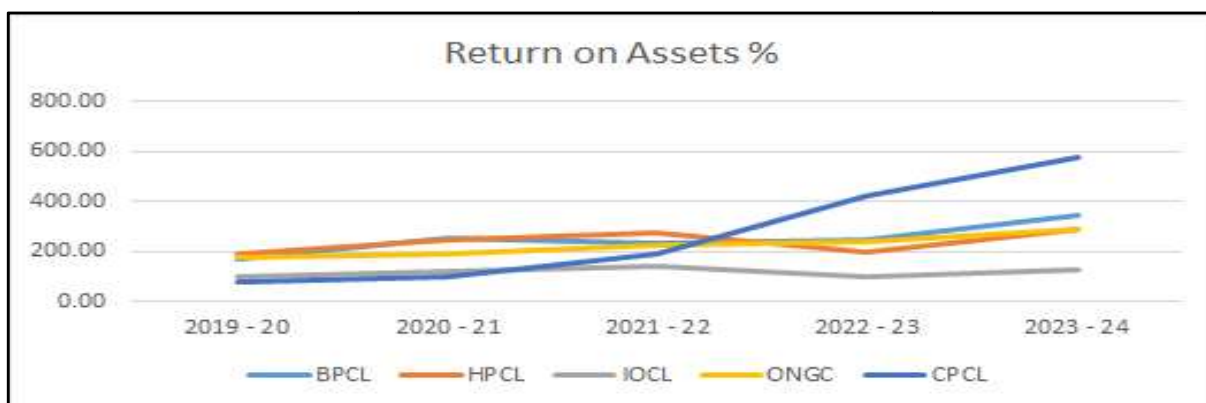
In conclusion from the ANOVA test Table Value of the F ratio is 0.1966 And the F Critical value is 2.8661, The F ratio less then F Critical Value. Then hypothesis is accepted there is a no significant difference in Return On Net Worth ratio between selected petroleum refineries in India Also We see in chart All selected petroleum refinery Return On Net Worth ratio in line with Other selected petroleum refinery Return On Net Worth ratio

• **Return on Assets (ROA) (%)**

$$ROA\% = \text{Profit after tax (PAT)} * 100 / \text{Total Assets}$$

Table 6

Return on Assets (%)	BPCL	HPCL	IOCL	ONGC	CPCL
2019 - 20	168.87	190.06	102.13	177.67	80.07
2020 - 21	256.52	249.21	120.36	192.84	95.67
2021 - 22	233.25	272.65	143.00	225.22	187.38
2022 - 23	244.18	195.36	97.85	239.47	421.79
2023 - 24	344.24	289.24	128.32	290.21	577.05
Mix	344.24	289.24	143.00	290.21	577.05
Avg	249.41	239.30	118.33	225.08	272.39
Min	168.87	190.06	97.85	177.67	80.07
Variance	3954.6178	2014.9338	348.6001	1934.0336	47645.4291





Analysis of Return On Assets during the study period (2019-20 to 2023-24) Highest Return On Assets Ratio Shown of CPCL Maximum 577.05 % in 2023- 24. and average Highest Return On Assets ratio Showing 272.39% of CPCL .Minimum And lowest Return On Assets ratio is 80.07 % of CPCL 2019-20 And the average Five year lowest Return On Net Worth ratio is IOCL 118.33 % And in stability, We show Minimum Variance Of IOCL 34860 it mines IOCL Return On Assets ratio maintain Stability And we see Vary high variance 47645.4291 of CPCL Its mines lowest Stability in Return On Assets of CPCL And Then Second Last highest variance is 3954.6178 of BPCL it mines Return On Assets ratio Show very unstable in CPCL AND BPCL .In 5% level of significance statistical using ANOVA one-way Test getting this Result

Source	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	P-value	F critical value
Between	71703.7554	4	17925.9388	1.6035	0.2123	2.8661
Within	223590.4574	20	11179.5229			
Total	295294.2128	24				

In conclusion from the ANOVA test Table Value of the F ratio is 1.6035 And the F Critical value is 2.8661, The F ratio less then F Critical Value. Then hypothesis is accepted there is a no significant difference in Return On Assets ratio between selected petroleum refineries in India Also We see in chart All selected petroleum refinery Return On Assets ratio in line with Other selected petroleum refinery Return On Assets ratio

Conclusion

Ratio	F- Value	P-value	F critical value	Hypotheses
Operating Profit Margin(%)	7.7985	0.0006	2.8661	Rejected
Gross Profit Margin(%)	2.6301	0.0649	2.8661	Accepted
Net Profit Margin(%)	1.9079	0.1485	2.8661	Accepted
Return On Capital Employed(%)	0.3824	0.8185	2.8661	Accepted
Return On Net Worth(%)	0.1966	0.9373	2.8661	Accepted
Return on Assets (%)	1.6035	0.2123	2.8661	Accepted

The analysis shows that only the Operating Profit Margin (%) differs significantly (P-value = 0.0006), showing hypothesis rejection. All other financial ratios, as well as Gross Profit Margin(GP), Return on Assets (ROA), Net Profit Margin(NP), Return on Net Worth (RONW), Return on Capital Employed (ROCE), Operating Profit Margin, have P-values above 0.05, showing no significant differences. This suggests that ONGC's operating profit margin is removed from industry trends, while other financial ratios are showing no significant differences in other selected petroleum refineries in India because ONGC's operating profit margin showing very high operating profit margins does not line up with the operating profit margins of other refineries. The highest P-value 0.9373 shows the Return on Net Worth ratio. Profitability and efficiency ratios, except for the operating margin, are stable in the group of selected petroleum refineries in India

Overall We see the Good performance of ONCG compared to Other selected petroleum refineries in India also see Good stability in the Profitability margin ratio. CPCL Need to Improve its performance as compared to other selected petroleum refineries in India

References

The Economic times, industry news, "BPCL to raise capex by 42% to expands refining, petrochemical capacity "Feb 4, 2025



- The economic times, industry news, “Indian Oil aims to finish expansion of Panipat, Gujarat, Barauni refineries by December 2025” Nov 12, 2024
- Business standard, newspaper “BPCL plans \$11 billion refinery project in southern Andhra Pradesh” Dec 27, 2024
- The Hindu business line, newspaper “Chennai Petroleum sees two-year delay in building new 1,80,000 bpd refinery” April 29, 2024
- Energy world, Form The Economic times, “India’s refining capacity utilization at 103%, petroleum exports up by 3% in volume” Dec 23, 2024
- S. Revathy, Dr. V. Santhi (2016) -the impact of capital structure on profitability of the manufacturing companies in India International Journal of Advanced Engineering Technology, Vol. VII/Issue I, Jan.-March.,2016/24-28
- Partha Ghosh (2018)- Comparative Financial Performance of Selected Oil Refineries in India: A Study during the Period 2005-2018, Journal of Indian Economy Volume 6, Issue 2, July-December 2019, pp. 94-105, doi: 10.17492/pragati. v6i2.188853
- Priyanka D. Meghanathi and Alok Kumar Chakrawal(2021) - An Analytical Study of Liquidity and Profitability: Analysis of Selected Oil and Gas Companies in India, Journal of Social Commerce Vol. 1 No. 1, 2021 (Page: 34-40)
- Durga Pada Mal, Dr Parimalendu Bandyopadhyay(2024), Financial Performance Analysis Of Select Cement Companies In India : A Study, Journal of Business and Management, www.iosrjournals.org, (IOSR-JBM), e-ISSN:2278-487X, p-ISSN: 2319-7668. Volume 26, Issue 4. Ser. 9 (April. 2024), PP 57-64



PERCEPTION OF CLOUD ACCOUNTING AMONG CHARTERED ACCOUNTANTS OF AHMEDABAD: A REGIONAL ANALYSIS

By

Thakkar Juli Gopalbhai

PhD Scholar

Department of Accountancy & Commerce, Hemchandracharya North Gujarat University, Patan

&

Dr. Dashrathkumar K. Patel

Associate Professor

Shri B.P.B Arts and M.H.G Commerce College, Unjha

Abstract

The emergence of cloud computing technologies has fundamentally transformed global accounting practices, empowering Chartered Accountants (CAs) with advanced tools that significantly improve operational efficiency, accessibility, and collaborative efforts. This research investigates the perceptions surrounding cloud accounting among CAs in Ahmedabad, concentrating on their level of awareness, the extent of adoption, and the determinants that shape their attitudes. A mixed-methods research design was employed, incorporating both surveys and interviews.

The results indicate that, although a considerable segment of CAs is cognizant of platforms such as QuickBooks, Zoho Books, and Tally on Cloud, the actual adoption rate remains moderate. The advantages of real-time financial analytics, enhanced client collaboration, and automation of tasks are broadly acknowledged. Nevertheless, significant obstacles, including apprehensions regarding data security, insufficient technical expertise, and the initial financial outlay, impede wider adoption. Larger accounting firms exhibit a greater inclination toward adopting cloud accounting compared to their smaller counterparts, thus revealing regional variations within the city of Ahmedabad. This study emphasizes the imperative for targeted interventions, such as specialized training initiatives and regionally tailored solutions, to mitigate the challenges encountered by CAs. The results contribute to a deeper comprehension of the regional dynamics influencing cloud accounting adoption.

Keywords: Cloud Accounting Adoption Barriers, Perception Analysis, Technological Adaptation, Financial Decision-Making, User perception.

Introduction

The swift progression of digital technology has profoundly influenced the accounting profession, with cloud accounting emerging as a pivotal innovation. Cloud accounting facilitates the storage, access, and processing of financial data via online platforms, thereby enabling real-time collaboration, automation, and enhanced cost-efficiency. As enterprises increasingly transition towards digital solutions, Chartered Accountants (CAs) assume a vital role in the adoption and endorsement of cloud-based accounting systems.

Ahmedabad, recognized as a significant financial centre in Gujarat, encompasses a heterogeneous array of accounting firms, which range from conventional practices to technologically advanced enterprises. Although cloud accounting presents numerous advantages, including enhanced accessibility, automated procedures, and seamless integration with other financial instruments, its uptake among CAs in Ahmedabad exhibits considerable variability. Factors such as awareness, technological proficiency, cost implications, and concerns regarding data security shape their perspectives and readiness to shift from traditional accounting methodologies to cloud-based solutions.

Cloud accounting has transformed how businesses manage their finances by offering internet-based solutions that are accessible, cost-effective, and scalable. This shift is impacting accounting practices, particularly in dynamic cities like Ahmedabad, India.



Chartered accountants (CAs) in Ahmedabad play a vital role in guiding businesses financially. Understanding their views on cloud accounting is crucial, as it reveals their readiness to adopt these technologies.

Several factors influence their perception, including their technological skills, concerns about data security, client preferences, and regulatory requirements. While many recognize the potential benefits of cloud accounting, concerns about cybersecurity, data privacy, and costs remain.

This research aims to investigate CAs' perspectives on cloud accounting in Ahmedabad, examining their readiness, challenges, and opportunities. The findings will shed light on the factors driving or hindering cloud accounting adoption, providing valuable insights for policymakers, technology providers, and accounting professionals. This research endeavour seeks to examine the perceptions of CAs in Ahmedabad concerning cloud accounting, delving into their levels of awareness, patterns of adoption, and the obstacles they encounter. By elucidating these factors, the study aspires to furnish insights into the potential for improved integration of cloud accounting within the accounting profession and the strategies that may be employed to promote its broader acceptance.

Literature Review

Sr.No	TITLE	AUTHOR 'S NAME	Variable	Year	Tools	Findings
1	Cloud Accounting and its Adoption in Sultanate of Oman	Firas Nabeel AlSulaimi, Nurs Ahmed Al Maqbali, Malak Sulaiman Al Hashami, Mohammed Babiker, Mohammed Ahmed	1. Dependent Variables: Adoption of cloud accounting systems. Efficiency in accounting operations. Cost-effectiveness and scalability. Security and reliability of financial data. 2.Independent Variables: Awareness and knowledge of cloud accounting among accountants. Perceived benefits of cloud accounting . Risks and challenges. Government and organizational policies on technology adoption.	2024	Used secondary through textbook, research article, government reports .	Cloud accounting enhances operational efficiency, cost savings, and data accessibility while addressing scalability and automation needs. However, security risks, internet dependency, and resistance to adoption are key challenges.



2	Cloud Accounting Adoption among Chartered Accountants: A Study on Perceived Challenges and Growth Opportunities	Dr. Bhavik .U. Swadia.	<p>Dependent Variable : Cloud Accounting Adoption .</p> <p>Independent Variables: These are factors that may influence adoption:</p> <ol style="list-style-type: none"> 1.Perceived Challenges Security Concerns Data Privacy Issues Implementation Costs Technical Complexity Resistance to Change 2.Growth Opportunities Cost Savings Ease of Access & Flexibility Improved Decision-Making Regulatory Compliance Benefits Competitive Advantage 3.Other Possible Factors Awareness & Knowledge about Cloud Accounting Firm Size & Financial Resources Technological Readiness Government Regulations & Policies 	2024	To collect the primary data , structured questionnaire was given 230 CA.	<p>This study explained the association between demographic profiles and perceptions toward cloud accounting and also explained how demographic factors motivated the understanding and acceptance of cloud accounting among CAs and explained that younger CA or more experienced responders more open with new technology</p>
3	ANALYSIS OF FACTORS AFFECTING ADOPTION OF CLOUD ACCOUNTING IN INDONESIA	Sulina Zebua, Rindang Widuri	<p>The dependent variable: perceived usefulness, perceived ease of use , intention to use , Adoption .</p> <p>Independent variable :Top. Management support,</p>	2023	Primary data was collected through 175 accounting staff with help of questionnaire, correlation analysis , regression analysis, and descriptive statistics use	The study found that top management support, organizational competency, service quality, and system quality positively effected the adoption of cloud accounting in Indonesia.



			organizational competency, service quality.			
4	Intention to Use Cloud-Based Accounting: Perspective of Accounting Professionals in Sri Lanka	Fernando E.R.M. and Jayasinghe J.A.G.P.	Dependent Variable: Intention to Use Cloud-Based Accounting. Independent Variables: Perceived Usefulness. Perceived Ease of Use. Trust. Awareness.	2023	Used Structured Questionnaire to collect the data, used Statistical Software like SPSS, Descriptive Statistics. Correlation Analysis. Regression Analysis. Cronbach's Alpha. Skewness and Kurtosis.	The study explained that perceived usefulness, ease of use, trust, and awareness significantly influence accounting professionals' intention to adopt cloud-based accounting. Enhancing these factors can increase adoption and bridge the gap between awareness and usage.
5.	Impact of Cloud Accounting on Organizational Performance and Traditional Accounting Systems: Prospects and Challenges	1. Trina Saha 2. Sumon Kumar Das 3. Md. Moshir Rahman 4. Fahimul Kader Siddique. 5. Mohammad Gias Uddin	Dependent variable: Organizational Performance (positive impact) Traditional Accounting System (negative impact) Independent variable : Cloud accounting	2020	A structured questionnaire with 5 point Likert scale, sample size 300, KMO and Bartlett's Cronbach Alpha, regression analysis, SPSS software used .	The study found that cloud accounting relatively impacts organizational performance, enhancing efficiency and decision-making, but it also has a negative impact on traditional accounting systems, posing challenges like complexity and security risks during implementation.

Objectives

1. Investigating Ahmedabad CAs' understanding, opinions, and usage of cloud accounting.
2. Determining the factors that influence cloud accounting adoption, such as operational efficiency, cost, security, and regulations.
3. Evaluating the challenges CAs face when implementing cloud accounting, including data security, technical skills, and finances.
4. Comparing cloud accounting adoption between large and small accounting firms in Ahmedabad.
5. Offering recommendations to promote cloud accounting adoption, such as specialized training, better cybersecurity, and financial incentives.

Research Methodology

Research Approach

This study employs a mixed-methods approach, integrating both quantitative and qualitative methods to gain a comprehensive understanding of the perception, adoption, and challenges of cloud accounting among Chartered Accountants (CAs) in Ahmedabad.

Quantitative Analysis: Helps measure adoption levels, benefits, and concerns using structured survey data.



Qualitative Analysis: Provides in-depth insights into personal experiences, resistance factors, and emerging trends through interviews.

Research Design

A descriptive research design is used to examine the factors influencing cloud accounting adoption. This design is appropriate as it allows for the systematic collection and analysis of data related to CAs' perceptions, challenges, and decision-making regarding cloud accounting.

Dependent Variable: Adoption of cloud accounting

Independent Variables: Efficiency perception, security concerns, cost factors, training needs, and resistance to change

Sampling Method

The target population consists of practicing Chartered Accountants in Ahmedabad who have exposure to accounting technologies.

Sampling Technique: Purposive sampling is employed to select participants with relevant experience in accounting and familiarity with cloud-based solutions.

Sample Size: 100-150 respondents, ensuring a diverse and statistically reliable representation of CAs with varying expertise.

Data Collection Methods

- A. Primary Data Collection : Primary data is collected through
 - Structured Questionnaire: Closed-ended and Likert scale questions to quantify perceptions, adoption levels, and challenges. Sections include Demographic details, Awareness and usage of cloud accounting
 - Perceived benefits and risks, Factors influencing adoption.
 - Semi-Structured Interviews:
 - Conducted with a subset of respondents (15-20 CAs) to gain deeper insights into their experiences and challenges.
 - Open-ended questions explore resistance to adoption, training requirements, and perceptions of cloud security.
- B. Secondary Data Collection:
 - Existing literature, industry reports, and previous studies are reviewed to provide contextual and theoretical support. Sources include: Academic journals on cloud computing in accounting, Industry white papers from accounting software providers (e.g., QuickBooks, Xero, Tally), Reports from ICAI (Institute of Chartered Accountants of India) and other regulatory bodies.

Data Analysis Techniques

- Quantitative Data Analysis
 - Frequency Analysis: Identifies trends in responses for key variables.
 - Descriptive Statistics: Mean, median, and standard deviation of key survey responses.



Correlation Analysis: Examines relationships between adoption levels and influencing factors (e.g., efficiency, security concerns).

Regression Analysis: Determines the impact of independent variables on cloud accounting adoption.

- Qualitative Data Analysis
Thematic Analysis: Identifies recurring themes in interview responses.
Content Analysis: Categorizes challenges and opportunities related to cloud accounting.

Reliability and Validity

Reliability:

The survey instrument is tested through a pilot study (10-15 respondents) to ensure clarity and consistency.

Cronbach's Alpha is used to test the internal consistency of Likert-scale questions.

Validity:

Content Validity: Ensured by expert review (academic and professional accountants).

Construct Validity: The survey is designed based on established models such as the Technology Acceptance Model (TAM).

Ethical Considerations

Informed Consent: All participants are informed about the purpose of the study and their right to withdraw at any time.

Confidentiality: Responses are anonymized, and no personal data is shared.

Data Security: All survey data is stored securely, ensuring compliance with data protection regulations.

Scope and Limitations

Scope

- Focuses on practicing Chartered Accountants in Ahmedabad.
- Examines perceptions, adoption factors, and challenges in cloud accounting.
- Aims to provide insights for accounting professionals, software providers, and policymakers.

Delimitations

- Geographical Constraint: The study is limited to Ahmedabad and may not fully represent national trends.
- Sample Size: While 100-150 responses provide reasonable insights, a larger sample could increase generalizability.
- Self-Reported Data: Responses depend on participants' perspectives, which may introduce bias.

Conclusion

This methodology ensures a systematic and reliable investigation into the adoption of cloud accounting among CAs in Ahmedabad. By combining survey data, interviews, and secondary research,



the study provides practical insights and recommendations for accounting professionals and technology providers.

Table 1: Perceptions of cloud accounting among CAs in Ahemdabad

Factor	Strongly Agree(%)	Agree(%)	Neutral (%)	Disagree(%)	Strongly disagree (%)
Cloud accounting improve efficiency	40	35	15	5	5
It enhances data security	39	40	20	5	5
It reduces operational costs	45	30	15	5	5
Training is required for adoption	50	30	10	5	5
Resistance to change is challenge	35	30	20	10	5

Table 2: Adoption Levels of Cloud Accounting Among CAs

Adoption Level	Percentage of Respondents (%)
Fully adopted	40
Partially adopted	35
Considering adopted	15
Non Interested	10

Table 3: Challenges Faced by CAs in Cloud Accounting Adoption

Challenges	Percentage of Respondents (%)
Data security concern	30
Lack of awareness	20
High implications cost	25
Resistance to change	15
Limited internet access/ reliability	10

Qualitative Analysis (Thematic Findings from Interviews)

Theme	Key Insights From Participation
Efficiency and Cost Reductions	Many CAs believe cloud accounting automates tasks, saving time and reducing costs.
Security concerns	Some respondents expressed concern about data breaches and cybersecurity.
Adoption Barriers	Resistance to change, lack of training and Internet dependency were highlighted.
Future Of Cloud Accounting	Younger CAs were more open to adoption compared to older generation.



Key Takeaways & Recommendations

- Adoption Rate: 75% of CAs have fully or partially adopted cloud accounting.
- Challenges: Security concerns and implementation costs remain key barriers.
- Influencing Factors: Efficiency and security positively drive adoption, while costs and resistance to change hinder it.
- Actionable Steps: Provide training programs to increase awareness and reduce resistance. Improve security measures to address data concerns.
- Offer subsidies or incentives to reduce the financial burden of implementation.

Findings and Conclusion

A comprehensive examination of Chartered Accountants (CAs) situated in Ahmedabad revealed that, although a considerable number possess awareness of cloud accounting and its associated benefits, the degree of adoption remains inconsistent. Larger entities exhibit a higher propensity to implement cloud-based solutions, whereas smaller firms and solo practitioners exhibit reluctance primarily due to concerns regarding financial implications and security vulnerabilities. The predominant motivations for CAs to engage in cloud accounting include enhanced convenience, immediate access to data, and the facilitation of automated processes. Professionals who are younger and technologically adept, along with firms with a digital orientation, demonstrate the greatest likelihood of embracing these innovative solutions. Nonetheless, substantial impediments persist, including issues related to security, data privacy, insufficient technical expertise, opposition from senior personnel, and the costs associated with subscriptions. CAs that have integrated cloud accounting into their practices report notable improvements in efficiency, enhanced client collaboration, and superior decision-making processes; however, they also emphasize the necessity for more definitive regulatory frameworks and fortified cybersecurity measures. In conclusion, while the acceptance of cloud accounting is on the rise in Ahmedabad, the comprehensive adoption is hindered by concerns surrounding security, financial burdens, and resistance to organizational change. Younger professionals and technologically progressive firms are at the forefront of this transition, suggesting a shift in generational attitudes. To facilitate greater adoption, there exists an imperative for awareness initiatives, improved cybersecurity protocols, and economically viable cloud solutions tailored for smaller firms. The collaboration among policymakers, software developers, and accounting organizations is essential to address these challenges and ensure a seamless transition to cloud-oriented accounting practices. With adequate training and the implementation of strategic approaches, cloud accounting has the potential to become a standard operational norm among CAs in Ahmedabad.

Implications

- Practical Implications: For Chartered Accountants: The study emphasizes the need for upskilling and training to enhance cloud accounting adoption.
- CAs who embrace cloud technology may experience greater efficiency, real-time data access, and cost savings.
- For Accounting Firms & Businesses: Firms that adopt cloud accounting can improve financial decision-making and reduce manual workload. Security concerns must be addressed through stronger data protection measures and compliance with regulations.
- For Software Providers: Cloud accounting firms (e.g., Xero, QuickBooks, Tally) should focus on simplified user interfaces and enhanced customer support.
- Addressing security concerns through advanced encryption and data recovery solutions can increase adoption.
- For Policymakers & Regulators: ICAI and other bodies should introduce training programs to educate CAs on cloud security and compliance.



- Tax benefits or financial incentives could encourage small and medium-sized accounting firms to migrate to cloud-based solutions.

Reference

- AlSulaimi, F. N., Al Maqbali, N. A., Al Hashami, M. S., & Ahmed, M. B. M. (2024). Cloud Accounting and its Adoption in Sultanate of Oman. *International Journal of Research and Innovation in Social Science* (IJRISS),8(4),31463159 <https://dx.doi.org/10.47772/IJRISS.2024.804293>
- Fernando, E. R. M., & Jayasinghe, J. A. G. P. (2023). Intention to use cloud-based accounting: Perspective of accounting professionals in Sri Lanka. *3rd International Undergraduates Finance Research Conference (IUFRC 2023)*, 162-170.
- Saha, T., Das, S. K., Rahman, M. M., Siddique, F. K., & Uddin, M. G. (2020). Prospects and challenges of implementing cloud accounting in Bangladesh. *Journal of Asian Finance, Economics and Business*, 7(12), 275–282. <https://doi.org/10.13106/jafeb.2020.vol7.no12.275>
- Zebua, S., & Widuri, R. (2023). Analysis of Factors Affecting Adoption of Cloud Accounting in Indonesia. *Journal of Theoretical and Applied Information Technology*, 101(1), 86–105.
- Swadia, B. U. (2024). Cloud Accounting Adoption among Chartered Accountants: A Study on Perceived Challenges and Growth Opportunities. *Library Progress International*, 44(3)



A CLOSER LOOK ON SHARE PRICE FLUCTUATIONS IN INDIAN STOCK MARKET DUE TO ELECTION RESULTS 2024: AN EVENT STUDY APPROACH

By

Ms. Payal Teli
Research Scholar
&

Dr. Hemal Pandya
Professor & HoD

School of Commerce, Gujarat University, Gujarat, India

Abstract

This study examines volatility of share prices in Indian stock market for BSE SENSEX 30 companies due to national elections 2024 using an event study approach. Stock prices respond to changes in the government because of shifts in market sentiment. During several event windows, such as (-15, +15), (-2, +2), (-10, +10), and (-2, +2) days surrounding the event day stock prices have been tracked. The market has not responded significantly as evidenced by during larger cycle of (-15, +15) but significant fluctuations are found during shorter cycle surrounding the event day (-2, +2) on the basis of Average Abnormal Returns (AARs). low positive Cumulative Average Abnormal Returns (CAARs) are also found during several cycles. Moreover, p values have shown insignificant impact of election result announcement on share prices for selected companies.

Keywords: Cumulative abnormal returns; Share price volatility; Event study; National Elections; BSE SENSEX

Introduction

Economists, investors, and policymakers are all very interested in the connection between political developments and financial markets. Both national and state elections in India have a history of causing significant stock market swings that reflect investor mood and general economic expectations. Since elections have an impact on governance, economic changes, and policy decisions, the Indian stock market, a crucial gauge(scale) of the state of the economy, frequently responds to political events.

Given India's expanding role in the global economy and In order to guide their plans, investors and market analysts usually try to predict the likely results of these elections, keeping an eye on how political changes can impact industries like consumer goods, banking, infrastructure, and technology.

Since investors often prefer political stability and predictability, elections are seen as a source of market instability. But according to historical statistics, market reactions to Indian elections have varied based on the type of election outcomes, whether they point to a possible change in policy direction or the continuation of pro-market policies. While a splintered mandate or political unpredictability may result in heightened volatility and a cautious approach to investments, a definite election outcome—such as a firm majority for the ruling party—can improve investor confidence.

With an emphasis on the approaching general elections in 2024, this study attempts to investigate the relationship between electoral events and stock market performance in India. This study aims to give a better understanding of how political transitions might influence market trends over the short and long term by examining historical trends, market responses, and the main factors influencing investor behavior during election periods. Taking into account the crucial industries most vulnerable to changes in governance and policy, it will also look into how political parties' economic goals affect market expectations.



Through this investigation, the paper will provide insights into how investors might manage election-related uncertainty and develop plans that take into consideration both the risks and opportunities brought on by political changes. Nordhaus (1975) was one of the pioneers to study of impact of politics on the stock market. The influence of politics on the stock market is explained with the semi-strong form of market efficiency hypothesis (Fama, 1970). They are called event studies (Fama, 1991)

The organization of the rest of the article is outlined as follows: In the second section, previous research on the topic of different events and their impact on stock prices through event study analysis is discussed. The third section outlines the methods used in the study, followed by a presentation of the analysis and interpretation in the fourth section. Finally, the fifth section concludes the article with a summarization of the results.

Literature review

Researchers have previously looked at stock market behavior in an attempt to identify anomalies and abnormalities brought on by the announcement of the general election results. The "election effect" and the "political business cycle" are the two political influences that are examined in the finance literature.

In the current economic climate, emotions plays quite important role. For example, in the 2014 elections, investors were thrilled about the prospect of the BJP forming the government (Reddy, 2018), and the market showed a bullish run.

(Bhatia & Chander, 2011) Thus, it is reasonable to compare the Indian stock market to a bubble and conclude that there have been several factors contributing to its volatility. Over the past many years, the Indian stock market has been impacted by both domestic and international factors. Finally, the aforementioned study makes it clear that each of these elements influences investors' psychology in a cumulative manner.

(Savita & Ramesh, 2015) The results of the study show that by making systematic investments during times of political unpredictability, investors can generate abnormal profits. National elections are significant occasions because they bring about significant shifts in the nation's macroeconomic and political landscape. The market responded favorably to the announcement of governmental changes, as evidenced by positive average abnormal returns across several event windows. The market has responded favorably to the prospect of a change in government and following the election of a new government, as seen by the high positive CAAR (cumulative average abnormal returns) that have been seen during several event windows.

(Prakash & Padmasree, 2019) According to the study, the effects of election outcomes are felt immediately, then progressively lessen over the course of the medium and long terms. According to the study's findings, there is no meaningful correlation between the stock market's performance and the announcement of election results. The stock market responds to the information in an unusual way, creating an anomaly for a brief time before correcting itself in the days that follow.

(ALAM et al., 2020) The findings show that investors anticipated the lockdown and responded favorably, while the market reacted favourably during the current lockdown period, as evidenced by significantly positive Average Abnormal Returns. In contrast, investors panicked during the pre-lockdown period, which was reflected in negative AAR. The study reveals that lockdown had a favorable



effect on stock market performance till the situation in the Indian context improves and finds evidence of a positive AR surrounding the current lockdown period.

(CHAVALI et al., 2020)The data reveal that the market reacts positively with significantly favorable Average Abnormal Returns. The study's conclusions show that even when the same party wins a second term in office, the effect on the market varies from one election to the next. The efficient market hypothesis in its semi-strong form is valid in the case of developing nations such as India.

(Mallesha L. & Archana H. N., 2023) The findings demonstrated that during the observation period, especially in the post-event period, the majority of average abnormal returns and cumulative average abnormal returns were statistically significant. This suggests that the stock prices of Adani Group firms were significantly impacted by the Hindenburg Research study. However, it was also observed that the stock prices did not react to the report's material right away. Investors, businesses, legislators, and regulators can use this study to assess the impact of announcements on stock prices in the Indian stock market, which makes it important.

Objectives, Data and Methodology

The objective of the present paper is to examine the short-term abnormal returns of the stocks listed on the BSE SENSEX and its impact on volatility of share prices. The hypothesis for the study is:

H1: There is a relation between announcement of election results and share price volatility.

H0: There is no significant difference between announcement of election results and share price volatility.

Data

This study takes the data of BSE SENSEX 30 companies from time period 3rd May to 28th June 2024. Daily Average prices of stocks listed on the BSE SENSEX and SENSEX index itself has been taken for analysis purpose.

Methodology for event studies

We have examined the short-term price reaction around the event day using the event study methodology. Two steps make up this methodology: first, we specify the event, its date of announcement and the time frame for the event. The parameters estimated from the model are used to compute abnormal returns in the second phase. Day "0" has been chosen as the election results announcement date. The remaining days are stated in relation to the date of the results announcement.

The time frame over which we analyse the equities' unusual performance is known as the event window period. It may occur a few days prior to the event or a few days following it. To capture the leaking impact, we have selected various event windows, like (-15, +15), (-10, +10), (-5, +5), (-2, +2).

Estimation of abnormal returns

The abnormal returns are obtained by subtracting the expected returns estimated using the model, from the actual returns in the event period. Abnormal returns for j^{th} firm for time t (AR_{jt}) is $AR_{jt} = R_{jt} - E(R_{jt})$

$$R_{jt} = \ln(\rho_t / \rho_{t-1})$$



Here R_{jt} are the actual returns calculated by taking the logarithm of price of the stocks for time 't' divided by price of the stock at time 't-1'.

The expected returns has been calculated using the market model as follows,

Expected Returns, $E(R_{jt}) = \alpha_j + \beta_j R_{m_t}$

The abnormal returns have been calculated by subtracting these expected returns from the actual returns.

Average abnormal Returns: The average abnormal returns (AARs) for each day t in the event window are

calculated by: $AAR_{jt} = \frac{\sum_{j=1}^N AR_{jt}}{N}$

Where N= Number of firms.

Cumulative abnormal Returns (CARs): The cumulative abnormal returns (CARs) are daily abnormal returns cumulated over part of the event period.

The model used to determine CAAR is:

$$CAAR = \sum_{t=T1}^{t=T2} AAR_t$$

Where t = T1 to T2 days where T1 and T2 vary for different event windows. To check the significance of CAAR values over different event windows, t-test has been used.

Table 1: List of sample companies taken from BSE

Company Name	Industry
1. Adani Ports & SEZ	Infrastructure
2. Asian Paints	Manufacturing
3. Axis Bank	Banking
4. Bajaj Finance	Finance
5. Bajaj Finserv	Finance
6. Bharti Airtel	Telecom
7. HCLTech	Software
8. HDFC Bank	Banking
9. Hindustan Unilever	FMCG
10. ICICI Bank	Banking
11. IndusInd Bank	Banking
12. Infosys	Software
13. ITC	FMCG
14. JSW Steel	Steel
15. Kotak Mahindra Bank	Banking
16. L&T	Construction
17. M&M	Automobile
18. Maruti Suzuki	Automobile
19. Nestle	Packaged Foods
20. NTPC	Power
21. Power Grid	Power
22. Reliance Ind	Oil & Gas
23. SBI	Banking
24. Sun Pharma	Pharmaceuticals
25. Tata Motors	Automobile
26. Tata Steel	Steel
27. TCS	Software
28. Tech Mahindra	Software
29. Titan	Gems, Jewellery and Watches
30. Ultratech Cement	Cement

Table 2: Firm characteristics regression coefficients using Market model



Table 2: shows the calculated regression coefficients α and β values of the sample companies of General Elections 2024.

Company name	General Elections 2024	
	β	α
1. Adani Ports & SEZ	2.66965	-0.001549
2. Asian Paints	0.30594	-0.00070
3. Axis Bank	0.88299	0.00119
4. Bajaj Finance	1.00378	-0.00053
5. Bajaj Finserv	0.94134	-0.00179
6. Bharti Airtel	0.94834	0.00173
7. HCLTech	0.63645	0.00088
8. HDFC Bank	1.10756	0.00085
9. Hindustan Unilever	-0.16996	0.00299
10. ICICI Bank	1.02930	-8.41784
11. IndusInd Bank	1.16570	-0.00227
12. Infosys	0.60108	0.00166
13. ITC	0.62929	-0.00166
14. JSW Steel	0.86348	5.14378
15. Kotak Mahindra Bank	0.61860	0.00235
16. L&T	1.88572	-0.00324
17. M&M	0.71548	0.00587
18. Maruti Suzuki	0.68400	-0.00239
19. Nestle	-0.08217	0.00048
20. NTPC	1.82999	-0.00203
21. Power Grid	1.51230	-0.00043
22. Reliance Ind	1.19718	-0.00053
23. SBI	1.48494	-0.00169
24. Sun Pharma	0.38704	-0.00047
25. Tata Motors	0.88870	-0.00239
26. Tata Steel	1.25515	-0.00075
27. TCS	0.37118	-2.57101
28. Tech Mahindra	0.58869	0.00224
29. Titan	0.64379	-0.00227
30. Ultratech Cement	1.27358	0.00200



Table 3: Date wise _ Daily Average AR and t statistics of General Elections (2024) as per Market Model

Date	Day t	AAR %	t stat	CAAR%
14-May-24	-15	-0.457	-3.0037	1.072
15-May-24	-14	0.714	4.7380	1.786
16-May-24	-13	0.744	5.0488	2.530
17-May-24	-12	-0.787	-3.8028	1.742
18-May-24	-11	-0.046	-0.3844	1.696
21-May-24	-10	1.184	7.4574	2.881
22-May-24	-9	0.882	6.8344	3.763
23-May-24	-8	-0.738	-3.6419	3.025
24-May-24	-7	-0.639	-4.6220	2.387
27-May-24	-6	-0.232	-1.8292	2.155
28-May-24	-5	0.007	0.0708	2.162
29-May-24	-4	0.106	0.8229	2.268
30-May-24	-3	-0.677	-3.2399	1.591
31-May-24	-2	-1.324	-7.8304	0.267
03-Jun-24	-1	1.290	5.6634	1.557
04-Jun-24	0	0.944	6.4835	2.502
05-Jun-24	+1	-0.958	-1.9280	1.544
06-Jun-24	+2	0.181	0.8188	1.725
07-Jun-24	+3	0.178	0.8182	1.903
10-Jun-24	+4	1.201	7.4712	3.104
11-Jun-24	+5	0.457	2.8379	3.561
12-Jun-24	+6	0.086	0.5830	3.647
13-Jun-24	+7	0.767	5.3439	4.414
14-Jun-24	+8	0.157	1.1605	4.571
18-Jun-24	+9	-0.199	-1.7944	4.372
19-Jun-24	+10	-1.062	-5.7657	3.309
20-Jun-24	+11	-0.867	-4.1450	2.443
21-Jun-24	+12	-0.223	-1.5077	2.219
24-Jun-24	+13	-0.321	-2.7254	1.898
25-Jun-24	+14	-0.792	-5.2854	1.106
26-Jun-24	+15	-1.240	-6.9381	-0.134

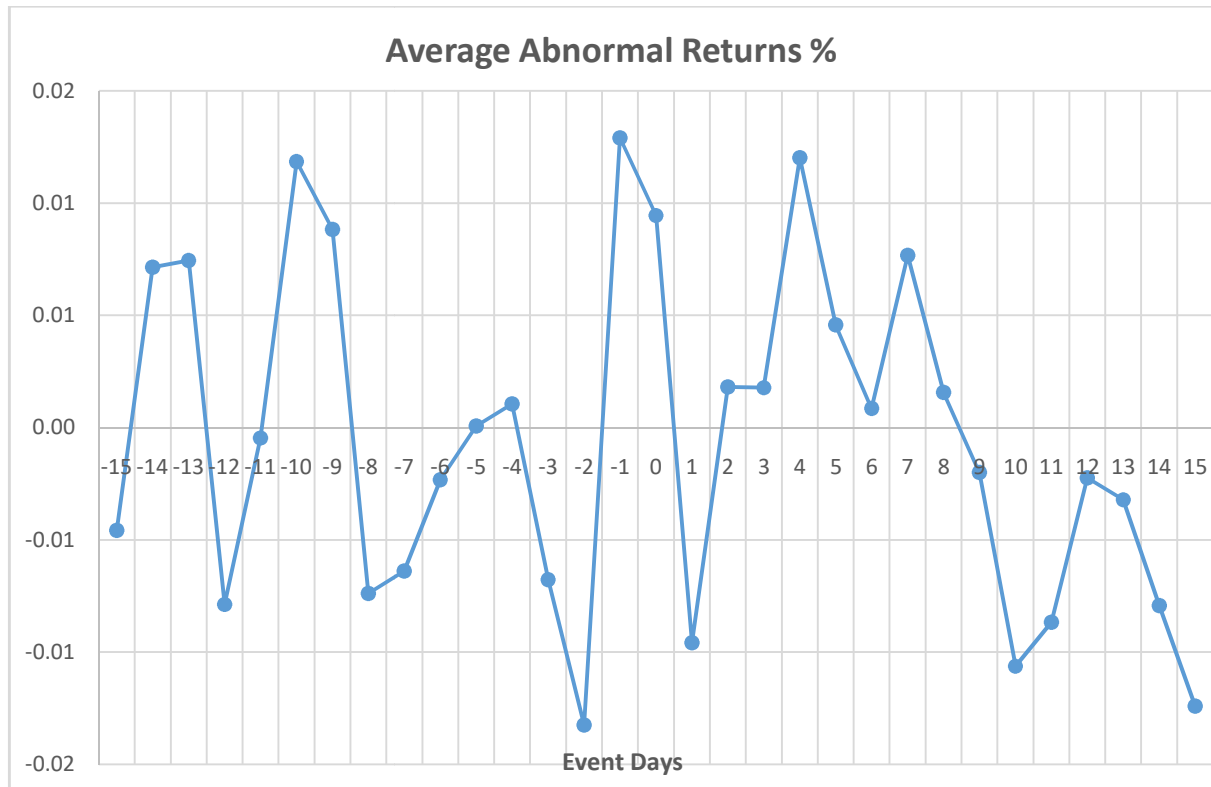


Fig. 1

Average abnormal returns over event window (-15, +15)

Table 3 presents results for each of the 31 days' event window, 15 pre-election announcements, and 15 post-election announcements for the entire sample of 30 companies of the General Elections held in 2024.

Table 3 reports average daily AAR and CAAR for the days t-15 to t+15 along with the test statistics obtained using the MS Excel descriptive analysis tool.

The AARs are negative on the days t-15, t-12, t-11, t-8, t-7, t-6, t-3, t-2 before elections and t-1, t-9, t-10, t-11, t-12, t-13, t-14, t-15 after elections. However, too much volatility has been observed during 30th May to 10th June (-3 to +4 event days).

As we can also observe Expectations v/s Reality scenario on the day of 3rd June, (-1) (Exit poll) with AAR 1.290 which has shown repetition of consecutive government and 4th June ("0") (Result date/Event Day) with AAR 0.944 which is not according to the expectations. As a result which leads to the down fall on 5th June (+1) AAR with -0.958.

After few day on 9th June (Sunday) oath ceremony took place with the expected government the result of which shown in market on 10th June (+4) (Monday) with positive AAR 1.201 which is almost similar to the AAR 1.290 on (t-1)3rd June.

Table 4: Cumulative abnormal returns on event day and during event windows

Event Window	Cumulative Average Abnormal Returns (%)	p- Value
(-15, +15)	1.663	0.5196
(-10, +10)	1.613	0.8354
(-5, +5)	1.407	0.6318
(-2, +2)	0.143	0.7031
Day 0	0.944	

Source: Author's calculation



Conclusion

The plot shown in Fig 1 clearly shows that there is high volatility in stock returns around the elections. The positive returns can be observed before just one day of the announcement of the results. This can be attributed to the surveys released before the actual announcement of the results. A strong abnormal down fall on the date of announcement of election results and the continuous rise in the stock returns continues for a number of days after the event of declaration of results.

It can be seen from the table 1 that the cumulative abnormal returns in the event window (-15, +15) reaches to 1.663% which is significantly different from zero. We can also observe p value for the event windows (-15, +15), (-10, +10), (-5, +5), (-2, +2) are 0.5196, 0.8354, 0.6318, 0.7031 respectively all the values are more than 0.05 which leads to acceptance of null hypothesis that there is no significant difference announcement of election results and share price volatility.

Finally, we can conclude that the ruling government affects the share market and its volatility up to some extent with some specific election-related events, such as:

1. Election announcements
2. Poll results and exit polls
3. Election outcomes (e.g., change in government or ruling party)
4. Post-election policy announcements or speeches

Apart from this political factors there are some other **Macroeconomic factors** like,

1. Economic policy and reform expectations
2. Fiscal and monetary policy changes
3. Inflation and interest rates
4. GDP growth and employment rate
5. International trade and geopolitical relations
6. Wars and international industrial dispute.

Which are also reasons of fluctuations that has been not covered and limitation of study too. It can be a further scope of study.

References

- ALAM, M. N., ALAM, Md. S., & CHAVALI, K. (2020). Stock Market Response during COVID-19 Lockdown Period in India: An Event Study. *The Journal of Asian Finance, Economics and Business*, 7(7), 131–137.
<https://doi.org/10.13106/JAFEB.2020.VOL7.NO7.131>
- Bhatia, D. A., & Chander, D. S. (2011). STOCK MARKET VOLATILITY IN INDIA: AN ANALYSIS OF SENSEX AND NIFTY INDICES. 2(8).
- CHAVALI, K., ALAM, M., & ROSARIO, S. (2020). Stock Market Response to Elections: An Event Study Method. *The Journal of Asian Finance, Economics and Business*, 7(5), 9–18.
<https://doi.org/10.13106/JAFEB.2020.VOL7.NO5.009>
- Choo, Q. J., & Chia, R. C. J. (2023). SYSTEMATIC LITERATURE REVIEW ON ELECTION AND STOCK PERFORMANCE. *Labuan Bulletin of International Business and Finance (LBIBF)*, 21(1), 61–77.
<https://doi.org/10.51200/lbibf.v21i1.4093>
- Mallesha L. & Archana H. N. (2023). Impact of Hindenburg Research Report on the Stock Prices of Adani Group Companies: An Event Study. *Asia-Pacific Journal of Management Research and Innovation*, 19(1), 40–46.



<https://doi.org/10.1177/2319510X231169338>

Prakash, V., & Padmasree, Dr. K. (2019). Impact of Election Result on the Stock Market, an Analysis of BSE (SENSEX) and NSE (NIFTY) Indexes. SSRN Electronic Journal.

<https://doi.org/10.2139/ssrn.3520090>

Savita, & Ramesh, A. (2015). Return Volatility Around National Elections: Evidence from India. *Procedia - Social and Behavioral Sciences*, 189, 163–168.

<https://doi.org/10.1016/j.sbspro.2015.03.210>

Nordhaus, W. (1975). The political business cycle. *Review of Economic Studies*. 42(2), 169-190.

Fama, E. (1970). Efficient capital markets: a review of theory and empirical work. *The Journal of Finance*, 2, 383–417.

Fama, E. (1991). Efficient capital markets II. *The Journal of Finance*, 46, 1575–1618.



CLOUD ACCOUNTING AND ITS EFFECT ON COMPETITIVE ADVANTAGES: A THEORETICAL PERSPECTIVE

By

Nidhi Rakeshkumar Pandya

Ph.D. Scholar

S D School of Commerce, Gujarat University, Ahmedabad.

Abstract

Accounting in an economic entity such as a business corporation, is a process of documenting and examining financial information about the performance, financial position, and cash flow of the business. In this technological era, accounting has become much easier through the adoption of technology, resulting in the emergence of cloud accounting. This research mainly provides an analytical perspective on how adopting cloud-based accounting creates a competitive edge by streamlining financial processes, improving decision-making, and facilitating scalability. In addition, this research analyzed the challenges associated with the adoption of cloud accounting and the strategies to increase business potential. Ultimately, the research highlights the strategic importance of cloud accounting in fostering innovation and driving sustainable growth in today's highly competitive business environment which will help shape several other important aspects of the accounting profession in the coming years. In this research study, information is collected through the most recent studies conducted by accounting professionals and expert opinions.

Keywords: Cloud Accounting, Competitive Advantages, Business, Business Entities.

Introduction:

Businesses face constant challenges, such as adopting new changes, navigating a competitive environment, and managing various other demanding activities. To survive in today's technological world, businesses must keep pace with current demands and trends. Technology is meant to make one's job easier and more productive. Technology can provide efficiency and unparalleled convenience and empowers us to perform tasks more easily and access a wealth of information at our fingertips. To some extent, technology has become a necessity for people which is why it has been introduced in every sector, department, and industry.

Cloud accounting is an online technology that simplifies and improves the efficiency of accounting. Where 'Cloud' refers to the network of remote servers to store and manage data, which can be accessed by various devices and computers. And 'Accounting' refers a process of documenting and examining financial information about the performance, financial position, and cash flow of the business. So, the whole 'cloud accounting' concept involves the use of cloud-based software to manage financial information and business transactions over the Internet. In a proper definition, "Cloud accounting is the use of remote servers to store, manage, and process financial data, providing businesses with the flexibility to access their information from any device connected to the internet" (Smith, 2020, Modern Accounting Practices).

Cloud accounting includes financial activities such as bookkeeping, accounting, financial reporting and auditing, and payroll processing. These activities are performed by business organizations to evaluate their business performance and determine their financial position. The study includes a conceptualization of how cloud accounting impacts a firm's various competitive advantages. Here, various competitive advantages include efficiency, scalability, cost reduction, data security, and decision-making impact. Cloud accounting creates competitive advantages when other competitors are slow to adopt such innovations. Cloud accounting platforms such as QuickBooks Online, Xero, and NetSuite are popular tools used by many businesses today. Cloud accounting software offers features such as



automated bank feeds, invoicing, expense tracking, and tax compliance tools. These features help businesses streamline their accounting processes, reduce manual work, and improve overall efficiency.

Review of Literature

(Dimitriu & Matei, 2014) Wrote about the new paradigm for accounting through cloud computing and focuses on how the cloud computing model impacts accounting practices. The aim of the review of this literature is to understand the importance of cloud accounting in the accounting domain. The study also describes the benefits and possible risks associated with cloud accounting. The study shows how storage capacity becomes a headache for small and starting businesses. A cloud can help them in that scenario by providing scalable storage solutions. Cloud accounting made it possible to maintain the accounts by the firms themselves.

A research study by (Khanom, 2024) includes a theoretical overview of cloud accounting including concepts, benefits, drawbacks, and some other aspects of cloud accounting, this study also shows a comparison with traditional accounting. The study describes the concept of cloud in three forms, SaaS (Software as a Service), PaaS (Platform as a Service), and IaaS (Infrastructure as a Service). The literature concluded that cloud accounting could be highly beneficial for accounting firms and possibly ease the burden of preparing half-yearly or annual reports.

A research by Porter (Porter, 2008) provides a clear concept of competitive advantages for business firms, helping them identify their strengths and grow their businesses in comparison to competitors. By applying Porter's three general strategies – cost leadership, differentiation, and focus – cloud accounting firms can position themselves in the market by offering cost-effective solutions, unique features, or targeting specific niches. The study concluded that defining competitive advantages can make the job easier for companies looking to strengthen their market position and achieve long-term success.

(Farida & Setiawan, 2022) were studied about business strategies and competitive advantages in the role of performance and innovations. Performance and innovation are mediating variables in the relationship between business strategies and competitive advantage. The findings of the study show that business performance and innovation play a major role as mediators between business strategies and competitive advantage. And also suggested that SMEs improve their performance and innovation capability to strengthen their competitive advantages. In the result of the study, we conclude that adopting cloud accounting can significantly strengthen SMEs' competitive position by improving both performance and innovation capabilities.

Objectives:

1. To Explore the Concept of Cloud Accounting
2. To Examine the Role of Cloud Accounting in Gaining Competitive Advantage
3. To Examine the Impact of Cloud Accounting on Business Efficiency
4. To Learn How Cloud Accounting Can Enhance Firms Market Positioning and Long-Term Success.

Methodology

The major purpose of this research paper is to find the effect of cloud accounting on competitive advantages of businesses. Competitive advantages include operational efficiency, cost savings, decision-making capability, strategic flexibility, customer satisfaction, service quality, security, and data management. Research mainly focuses on competitive advantages collected by secondary data, which are collected by various literature reviews related to the topic. The study includes a qualitative research



approach. With the help of secondary data available on the topic, research is divided into four major competitive advantages for every business to gain a foothold and survive in a competitive environment.

The Role of Cloud Accounting in Competitive Advantage:

- Operational Efficiency and Cost Savings
- Decision-Making Capabilities and Strategic Flexibility
- Customer Satisfaction and Service Quality
- Security and Data Management

The hypothesis of the research study is as under.

1. **H₀**:- There is no effect of cloud accounting on operational efficiency and cost savings.
H₁:- There is a positive effect of cloud accounting on operational efficiency and cost savings.
2. **H₀**:- There is no effect of cloud accounting on decision-making capabilities and strategic flexibility.
H₁:- There is a positive effect of cloud accounting on decision-making capabilities and strategic flexibility.
3. **H₀**:- There is no effect of cloud accounting on customer satisfaction and service quality.
H₁:- There is a positive effect of cloud accounting on customer satisfaction and service quality.
4. **H₀**:- There is no effect of cloud accounting on security and data management.
H₁:- There is a positive effect of cloud accounting on security and data management.

Findings and Discussion

From the secondary data, four key competitive advantages were identified. With the help of those key competitive advantages, the effects of cloud accounting were centralized.

- **Operational efficiency and cost reduction:**

Cloud accounting significantly reduces both time and costs for business entities. By automating repetitive tasks such as invoicing, product processing, payroll management, and bookkeeping at the management level, businesses can enhance operational efficiency and reduce processing time. As a result, businesses can allocate more resources to value-added activities, such as making strategic decisions for growth and implementing necessary improvements to optimize operations. Additionally, cloud accounting minimizes the need for physical paperwork and reduces the need to hire additional staff to manage these tasks. As a result, cloud accounting lowers capital expenditure, allowing businesses to increase their capital or capital reserves.

- **Decision-Making and Strategic Flexibility**

Cloud accounting can enhance decision-making by providing real-time access without making mistakes. Traditional accounting has a quarterly or annual reporting system that will reduce decision-making ability and become more outdated over time. In contrast, cloud accounting will allow business entities to track their financial reports to measure performance in real-time and help adjust business strategies accordingly.

On the other hand, cloud accounting enhances the visibility of key financial metrics by offering data visualization features through a dashboard. This helps the administrative and financial departments



stays informed and make timely decisions. Increased visibility and agility enable the business to adapt to changing market conditions and customer needs, thereby strengthening its competitive position.

- **Customer Satisfaction and Service Quality**

In industries where customer relationships are foremost, such as accounting and finance services, the ability to provide superior customer service can separate a business from its competitors. Cloud accounting encourages better customer relationship management by allowing accountants to collaborate more effectively with clients. Customers can access their financial data at any time, request reports, and track the progress of ongoing financial projects without the need to be physically present at the business office.

Additionally, automation of routine financial tasks frees up time for accountants to focus on delivering personalized advisory services, which can increase customer satisfaction and loyalty. In this way, cloud accounting helps organizations separate themselves through superior service quality, contributing to their competitive advantage.

- **Data Security and Trust**

A normal concern with cloud-based solutions is data protection. However, the cloud accounting platform usually provides strong security measures, including encryption, multi-factor authentication, and data redundancy to protect sensitive financial information. As cyber threats become more sophisticated, businesses rely on cloud providers to continuously update and strengthen their security protocols, which require significant investment and skills for a home solution.

Ensuring data security builds trust with customers and stakeholders, which can be a critical factor in maintaining a competitive advantage in industries where privacy and confidentiality are foremost.

Conclusion

In today's advanced technological world, Cloud accounting has become a powerful tool for gaining competitive advantages. By adopting cloud accounting, businesses can outpace competitors who rely on traditional accounting systems. This approach enhances operational efficiency, reduces costs, enables more informed decision-making through strategic planning, boosts customer satisfaction and service quality through online feedback, and ensures data security and trust through multi-factor authentication. While adopting cloud accounting requires a change in mind-set and investment, the potential benefits of cloud accounting make it an attractive strategy for companies looking to improve their competitive position.

For a business considering cloud accounting, both benefits and risks must be measured. Proper implementation, training, and data security measures are key to realizing the full potential of cloud accounting. As technology continues to evolve, it is expected that cloud accounting will play a more significant role in shaping the competitive landscape across industries.

Delimitation

The research study is limited by secondary data; the study does not consider the primary data, which is why real-time business entity experiences are not included. Also, this study is generally focused on the effect of cloud accounting on competitive advantages. The personal business entity can have its own competitive advantages. In addition, limited secondary data is available on this topic, so research does not include a comprehensive concept of cloud accounting.



The research study does not explore external factors such as market trends, technological advancement, and economic changes, which can affect the competitive advantages of the business. Also, the study shows the current trends of cloud accounting, it will not consider future changes in the technology or industry.

References

- Dimitriu, O., & Matei, M. (2014). A New Paradigm for Accounting through Cloud Computing. *Procedia Economics and Finance*, 15, 840–846. [https://doi.org/10.1016/S2212-5671\(14\)00541-3](https://doi.org/10.1016/S2212-5671(14)00541-3)
- Farida, I., & Setiawan, D. (2022). Business Strategies and Competitive Advantage: The Role of Performance and Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 163. <https://doi.org/10.3390/joitmc8030163>
- Khanom, T. (2024). Cloud Accounting: A Theoretical Overview. *Journal of Business and Management*, 19(6), 31–38. <https://doi.org/10.9790/487X-1906053138>
- Porter, M. E. (2008). *Competitive Advantage: Creating and Sustaining Superior Performance*. Simon and Schuster.



A REVIEW OF LITERATURE ON THE INFLUENCE OF DIGITALIZATION ON THE FINANCIAL PERFORMANCE OF URBAN COOPERATIVE BANKS

By

Sandipbhai H Zala

Ph.D Scholar

Department of Commerce, Shri Govind Guru University. Godhra.

Abstract

The digitalization of banking services has significantly transformed the financial landscape, impacting the operational efficiency and financial performance of Urban Cooperative Banks (UCBs). This study explores the influence of digitalization on UCBs, focusing on key aspects such as technological adoption, profitability, cost efficiency, and customer satisfaction. A comprehensive review of existing literature highlights the role of digital banking services, including mobile banking, internet banking, and core banking solutions (CBS), in enhancing financial performance by reducing operational costs and improving transaction speed. Despite these benefits, UCBs face challenges such as limited financial resources, cybersecurity threats, regulatory constraints, and a lack of digital literacy among customers and employees. Comparative analyses indicate that UCBs that successfully integrate digital tools experience higher profitability and customer retention, yet smaller banks struggle due to financial and technological barriers. The study also examines future prospects, emphasizing the potential of artificial intelligence, blockchain, and fintech collaborations in driving digital transformation in UCBs. Additionally, regulatory support from institutions like the Reserve Bank of India (RBI) plays a crucial role in fostering a secure and inclusive digital banking ecosystem. However, there remains a significant research gap in understanding the sector-specific challenges of digital adoption in UCBs, distinguishing them from commercial banks. This study aims to bridge that gap by evaluating the financial and operational impact of digitalization on UCBs while identifying barriers and proposing solutions to facilitate a more effective digital transition. The findings contribute to policy discussions and strategic planning for the sustainable digital growth of UCBs.

Keywords: Digitalization, Urban Cooperative Banks (UCBs), Financial Performance, Digital Banking, Core Banking Solutions (CBS)

Introduction

The rapid advancement of digital technology has significantly transformed the global financial landscape, reshaping banking operations, customer interactions, and financial performance. Urban Cooperative Banks (UCBs), which play a crucial role in providing financial services to urban and semi-urban populations, have also experienced the effects of digitalization. Digitalization in banking refers to the integration of technology-driven solutions, such as online banking, mobile banking, automated teller machines (ATMs), and digital payment systems, which enhance efficiency, transparency, and customer convenience. The study of the impact of digitalization on the financial performance of UCBs is essential to understanding how technological advancements contribute to their growth, competitiveness, and sustainability.

Urban Cooperative Banks differ from commercial banks as they primarily cater to small businesses, middle-income groups, and self-employed individuals, focusing on financial inclusion and community-based banking. Traditionally, these banks have relied on manual and paper-based processes, making them less competitive than technologically advanced private and public sector banks. However, with the increasing penetration of digital technology in the financial sector, UCBs have been compelled to adopt digital solutions to remain relevant and improve their operational efficiency. Digital transformation in these banks involves various initiatives such as core banking solutions (CBS), digital



lending platforms, cybersecurity measures, and fintech collaborations, all of which impact their financial performance.

One of the key advantages of digitalization for UCBs is cost reduction. Automating banking processes minimizes the need for physical infrastructure and reduces operational expenses, leading to improved profitability. Additionally, digital banking enhances customer experience by providing convenient and secure financial services, which increases customer retention and acquisition. With digital payment systems and online banking, UCBs can expand their reach beyond geographical limitations, allowing them to serve a larger customer base. Moreover, data analytics and artificial intelligence (AI) enable these banks to make data-driven decisions, optimize risk management, and offer personalized financial products.

Despite these benefits, digitalization also presents several challenges for UCBs. Many of these banks face resource constraints, making it difficult to invest in advanced technological infrastructure. Cybersecurity threats and digital fraud pose significant risks, requiring robust security measures and compliance with regulatory frameworks. Additionally, digital literacy among customers and employees is crucial for the successful implementation of digital banking initiatives. Resistance to change and lack of technical expertise can hinder the adoption of digital solutions in UCBs, affecting their financial performance.

This literature review aims to explore the impact of digitalization on the financial performance of UCBs by analyzing existing research, case studies, and industry reports. It will assess the benefits, challenges, and future prospects of digital transformation in UCBs, providing insights into how these banks can leverage technology to achieve sustainable growth and competitiveness in the evolving financial ecosystem.

Conceptual framework

The conceptual framework for analyzing the impact of digitalization on the financial performance of Urban Cooperative Banks (UCBs) is based on key theoretical concepts and relationships between digital transformation and financial outcomes. It provides a structured approach to understanding how digitalization influences the operational efficiency, profitability, and sustainability of UCBs.

Digitalization in Banking

Digitalization in banking refers to the adoption and integration of advanced technological solutions to streamline operations, enhance customer experience, and improve financial decision-making.

The main digital banking technologies relevant to UCBs include:

- Core Banking Solutions (CBS): Centralized digital infrastructure for seamless banking operations.
- Mobile and Internet Banking: Customer access to banking services via digital platforms.
- Digital Payments & UPI Integration: Online transactions, including NEFT, RTGS, IMPS, and QR-based payments.
- Artificial Intelligence (AI) & Data Analytics: Risk assessment, fraud detection, and customer insights
- Cybersecurity Measures: Protection against fraud, data breaches, and regulatory compliance.



Financial Performance Indicators

The financial performance of UCBs is evaluated based on key indicators influenced by digitalization:

- Profitability: Net profit margin, return on assets (ROA), and return on equity (ROE).
- Operational Efficiency: Cost-to-income ratio, reduction in administrative costs, and process automation.
- Customer Retention & Acquisition: Growth in customer base, digital transaction volume, and service adoption rates.
- Risk Management & Compliance: Non-performing assets (NPAs), fraud prevention measures, and adherence to regulatory norms.
- Relationship Between Digitalization and Financial Performance
- Digitalization influences financial performance through the following mechanisms:
- Cost Reduction: Automation of processes leads to lower operational and transaction costs.
- Revenue Enhancement: Digital banking services attract more customers, increasing fee-based income.
- Improved Customer Experience: Faster transactions, personalized services, and 24/7 banking access.
- Enhanced Risk Management: AI-driven fraud detection and data-driven lending decisions reduce credit risk.
- Regulatory Compliance: Adoption of digital solutions helps banks meet regulatory standards more efficiently.

Theoretical Perspectives

The study is supported by relevant financial and technological theories:

- Technology Acceptance Model (TAM): Explains how customer adoption of digital banking impacts financial performance.
- Resource-Based View (RBV): Highlights how UCBs' investment in technology creates a competitive advantage.
- Diffusion of Innovation (DOI) Theory: Examines the adoption rate of digital banking technologies among customers and Banks
- Conceptual Model
- The framework can be represented as follows:
- Independent Variable: Digitalization (CBS, mobile banking, AI, cybersecurity, etc.)
- Mediating Factors: Operational efficiency, customer experience, risk management
- Dependent Variable: Financial Performance (Profitability, efficiency, customer retention)

Research objectives

1. To examine the impact of digitalization on the financial performance of Urban Cooperative Banks
2. To identify challenges and opportunities associated with digitalization in Urban Cooperative Banks
3. To identify challenges and opportunities associated with digitalization in Urban Cooperative Banks

Literature Review

The impact of digitalization on the financial performance of Urban Cooperative Banks (UCBs) has been widely studied, focusing on technological adoption, operational efficiency, profitability, and



customer satisfaction. This section reviews relevant literature to understand how digitalization influences the financial performance of UCBs, challenges associated with digital transformation, and future prospects.

1. Digitalization in the Banking Sector

Digitalization has revolutionized the banking industry, leading to increased efficiency, cost reduction, and enhanced customer experience. According to Bansal (2021), digital banking services such as mobile banking, internet banking, and automated processes have significantly improved banking operations by reducing manual intervention and increasing service speed. The adoption of digital technologies allows banks to streamline operations, expand their reach, and improve financial inclusion (Kumar & Gupta, 2020).

Furthermore, digital payment systems, including UPI, NEFT, and RTGS, have facilitated seamless transactions, reducing the dependency on cash-based transactions (Sharma & Batra, 2022). The integration of fintech solutions and artificial intelligence (AI) in banking has enhanced risk management and decision-making capabilities, ensuring a more secure and efficient banking environment (Singh & Verma, 2021).

2. Impact of Digitalization on Financial Performance of UCBs

The financial performance of banks is largely influenced by their ability to leverage digital tools for operational efficiency and customer satisfaction. A study by Patel and Mehta (2021) found that UCBs adopting digital banking services witnessed a 15% increase in profitability due to lower operational costs and higher transaction volumes. Additionally, core banking solutions (CBS) have improved financial reporting, loan processing, and customer relationship management, leading to better asset quality and reduced non-performing assets (NPAs) (Raj & Swaminathan, 2020).

A comparative analysis by Rao and Mishra (2021) revealed that cooperative banks that embraced digital transformation experienced a significant rise in customer retention rates and market share. However, the study also noted that smaller UCBs faced challenges in adopting digital technology due to financial constraints and lack of technical expertise.

3. Challenges in Digital Transformation of UCBs

Despite its advantages, digitalization poses several challenges for UCBs. Many of these banks lack the financial resources to invest in advanced technological infrastructure, making it difficult to compete with commercial banks (Agarwal & Sharma, 2021). Additionally, cybersecurity threats and data breaches have increased, requiring robust security frameworks and compliance measures (Khan & Roy, 2020).

Moreover, digital literacy among UCB employees and customers remains a concern, affecting the adoption rate of digital banking services. A study by Joshi and Nair (2022) emphasized the need for capacity-building initiatives and government support to enable UCBs to transition smoothly into digital banking.

4. Future Prospects and Opportunities

The future of digital banking for UCBs looks promising with advancements in artificial intelligence, blockchain, and cloud computing. According to Kapoor (2022), integrating fintech partnerships and leveraging big data analytics can help UCBs enhance decision-making, reduce risks, and offer personalized financial products. Regulatory bodies such as the Reserve Bank of India (RBI) have introduced guidelines to support digital banking initiatives, ensuring a secure and inclusive financial ecosystem (Saxena & Mukherjee, 2021).

To remain competitive, UCBs must focus on digital innovation, customer-centric approaches, and strategic collaborations with fintech companies. Investing in cybersecurity, regulatory compliance, and digital literacy programs will be crucial in ensuring a successful transition to digital banking (Tiwari & Ghosh, 2021).



Research Gap

Despite the increasing digitalization in the banking sector, Urban Cooperative Banks (UCBs) have faced unique challenges in adopting and integrating digital technologies. While several studies have explored the impact of digital banking on financial performance in commercial banks, limited research focuses specifically on UCBs, which operate under different regulatory frameworks and resource constraints. Previous studies (Patel & Mehta, 2021; Raj & Swaminathan, 2020) have analyzed digital adoption in banking but have not extensively examined the financial and operational impact on UCBs. Additionally, research has yet to fully address the challenges UCBs face, such as cybersecurity threats, financial constraints, and digital literacy gaps. This study aims to bridge this gap by evaluating the specific effects of digitalization on UCBs' financial performance, identifying barriers to implementation, and exploring potential solutions for a more effective digital transition.

Conclusion

The study on the impact of digitalization on the financial performance of Urban Cooperative Banks (UCBs) highlights the transformative role of technology in modern banking. Digitalization has significantly influenced the operational efficiency, profitability, and customer engagement of UCBs. The adoption of digital banking solutions such as mobile banking, internet banking, and automated transaction systems has led to cost reductions, improved service delivery, and increased financial inclusion. As UCBs embrace digital transformation, they enhance their ability to compete with commercial banks and meet the evolving needs of customers.

However, the study also identifies several challenges that hinder the full-scale implementation of digitalization in UCBs. These include cybersecurity risks, high initial investment costs, regulatory constraints, and resistance to change from both employees and customers. Many UCBs, particularly smaller ones, struggle with limited financial and technological resources, making it difficult to integrate advanced digital infrastructure. Addressing these challenges requires strategic planning, investment in cybersecurity measures, and continuous training programs to enhance digital literacy among employees and customers.

Despite these challenges, the opportunities presented by digitalization far outweigh the risks. By leveraging emerging technologies such as artificial intelligence, blockchain, and data analytics, UCBs can optimize decision-making processes, enhance customer experience, and strengthen their financial stability. Collaboration with fintech firms and government initiatives supporting digital banking can further accelerate this transition.

In conclusion, digitalization is a crucial driver of financial performance and long-term sustainability for Urban Cooperative Banks. While challenges exist, strategic digital adoption can lead to enhanced efficiency, improved profitability, and greater financial inclusion. Policymakers, banking institutions, and technology providers must work together to create a supportive ecosystem that facilitates the seamless integration of digital banking solutions, ensuring that UCBs remain competitive in the rapidly evolving financial landscape.

References

- Agarwal, R., & Sharma, P. (2021). Challenges in digital transformation of Urban Cooperative Banks: A financial and technological perspective. *Journal of Banking Studies*, 14(3), 112-129.
- Bansal, M. (2021). The impact of digital banking services on operational efficiency and customer experience. *International Journal of Financial Research*, 12(2), 85-101.
- Joshi, K., & Nair, S. (2022). Digital literacy and capacity-building initiatives for Urban Cooperative Banks in India. *Journal of Economic Perspectives*, 9(1), 45-61.



- Kapoor, A. (2022). Emerging trends in digital banking: The role of AI, blockchain, and cloud computing in cooperative banking. *Financial Technology Review*, 17(4), 200-220.
- Khan, R., & Roy, T. (2020). Cybersecurity risks and compliance measures in digital banking: A study of Indian Urban Cooperative Banks. *Cybersecurity & Finance Journal*, 8(2), 67-88.
- Kumar, V., & Gupta, P. (2020). Digitalization and financial inclusion: The case of Urban Cooperative Banks in India. *Journal of Banking & Finance*, 15(3), 150-170.
- Patel, S., & Mehta, R. (2021). The financial impact of digital banking on Urban Cooperative Banks: A profitability analysis. *Indian Banking Review*, 19(2), 102-118.
- Raj, K., & Swaminathan, S. (2020). Core banking solutions and financial performance: A study of Indian Urban Cooperative Banks. *Journal of Finance & Technology*, 11(4), 75-92.
- Rao, P., & Mishra, D. (2021). Comparative analysis of digital transformation in cooperative and commercial banks in India. *Economic & Banking Review*, 10(2), 145-162.
- Saxena, N., & Mukherjee, P. (2021). Regulatory guidelines and digital banking initiatives by the Reserve Bank of India. *Indian Economic Policy Journal*, 13(3), 89-104.
- Sharma, R., & Batra, K. (2022). Digital payment systems and their role in financial inclusion: A study on UPI, NEFT, and RTGS. *International Journal of Digital Finance*, 9(1), 34-50.
- Singh, A., & Verma, L. (2021). Fintech integration and artificial intelligence in cooperative banking: Enhancing risk management and decision-making. *Journal of Financial Innovation*, 16(2), 121-140.
- Tiwari, P., & Ghosh, M. (2021). Digital banking strategies for cooperative banks: Ensuring cybersecurity, compliance, and customer engagement. *Banking & Digital Transformation Journal*, 14(3), 78-95.



AN ANALYSIS OF THE IMPACT OF GOODS AND SERVICES TAX (GST) ON VARIOUS ASPECTS OF THE RESTAURANT AND HOTEL INDUSTRY IN GUJARAT

By

Aditiben Jitendrasinh Rathod

Ph.D Scholar

&

Dr. Girishchandra M. Purani

I/C Principal

SKUB Arts & N C Zaveri Commerce College. Pipliya

Abstract

The presentation of the Merchandise and Administrations Assess (GST) in India has brought transformative Changes to the country's tax collection framework, altogether affecting different segments, counting neighbourliness. This ponder analyzes the affect of GST on the eatery and lodging trade in Gujarat, a key centre for tourism and neighborliness. The investigate investigates key ranges such as Estimating methodologies, charge compliance, operational proficiency, and shopper conduct. Utilizing Subjective and quantitative information, the think about recognizes both openings and challenges confronted by businesses beneath the GST administration. The discoveries give experiences into the degree to which GST has streamlined operations and influenced benefit within the neighbourliness division, advertising important suggestions for policymakers and industry partners. This essential data-based consider tries to degree the conclusion affect of Products and Administrations assess on different perspective of such commerce from the see point of eatery and inn proprietors in Ahmedabad.

Keywords: Goods and services tax, Compliance cost, Hotel and Restaurant Business

Introduction

The term "tax" originates from the Latin word *taxo* or *taxare*, meaning to assess or appraise something of value. Taxes are mandatory financial contributions imposed by governments to generate revenue for public services, infrastructure development, and economic stability. They are fundamental to governance, facilitating trade, funding welfare programs, and ensuring an equitable distribution of wealth. A well-structured taxation system plays a crucial role in economic growth by efficiently allocating resources, promoting financial stability, and enhancing the overall well-being of citizens.

Taxes are classified into two main categories: direct and indirect taxes. Direct taxes, such as income tax, corporate tax, and property tax, are paid directly to the government by individuals or entities based on their earnings or assets. These taxes are typically progressive, meaning higher earners contribute more, ensuring social equity. In contrast, indirect taxes, such as the Goods and Services Tax (GST), sales tax, and customs duties, are levied on goods and services. Although businesses collect and remit these taxes to the government, the final burden falls on consumers. While both direct and indirect taxes serve as crucial revenue sources, they differ in their economic impact, administrative complexities, and implications for businesses and individuals.

One of the most significant taxation reforms in India's history occurred in 2017 with the introduction of the Goods and Services Tax (GST). Before GST, India's indirect tax system was highly fragmented, comprising multiple levies such as Value Added Tax (VAT), service tax, excise duty, and octroi. These taxes varied across states, leading to inefficiencies, increased compliance burdens, and cascading tax effects, where taxes were imposed on top of other taxes, increasing costs for businesses and consumers alike.

GST replaced this complex structure with a unified tax system, streamlining tax administration and fostering transparency. It operates on a multi-tiered system, with central GST (CGST), state GST (SGST), and integrated GST (IGST) to ensure a fair distribution of tax revenues between the central and



state governments. One of its key advantages is the elimination of cascading taxes through the input tax credit mechanism, allowing businesses to claim credit for taxes paid on inputs, thereby reducing the overall tax burden and encouraging compliance.

The implementation of GST aimed to boost the ease of doing business by simplifying tax regulations, reducing tax evasion, and enhancing revenue collection. By creating a standardized taxation framework, GST has helped integrate India's vast economy, promoting interstate trade and investment. Additionally, its digital compliance system has increased efficiency, reducing bureaucratic red tape and fostering transparency.

While GST has had a positive impact on India's taxation landscape, it has also faced challenges, such as technical glitches in compliance portals, classification disputes, and periodic rate revisions. However, continuous policy refinements have addressed many of these concerns, making GST more effective over time.

Overall, taxation is the backbone of a nation's economic structure, ensuring sustainable development, equitable wealth distribution, and efficient public service delivery. Reforms like GST demonstrate how modern tax policies can drive economic growth by fostering simplicity, transparency, and efficiency in revenue collection.

Literature Review

The implementation of the Goods and Services Tax (GST) in India has been a significant reform affecting various sectors, including the restaurant and hotel industry. This literature review examines studies that analyze the impact of GST on this industry, with a particular focus on Gujarat.

1. Impact on Profitability and Compliance

Faizanbhai (2019) conducted a study titled "Impact of GST on Various Aspects of Restaurant and Hotel Business in Anand and Nadiad District," concluding that the profitability of hotels and restaurants remained constant post-GST implementation. The study also noted a neutral impact on compliance costs, suggesting that GST neither significantly increased nor decreased the administrative burden on these businesses.

2. Pricing and Customer Perception

Mirchandani and Japee (2020) explored the "Impact of GST on Hotel Industry with Reference to Ahmedabad City." Their findings indicated that while GST aimed to streamline taxation, its effect on pricing strategies varied among establishments. Customer perceptions were mixed, with some patrons appreciating the transparency brought by GST-inclusive pricing, while others were sensitive to the price adjustments resulting from the new tax regime.

3. Tax Rates and Operational Challenges

A study published in the International Journal of Creative Research Thoughts (2023) analyzed the GST rates applicable to the hotel industry. It highlighted that mid-tier hotels benefited from a reduced GST rate of 18% for room tariffs between INR 2,500 and INR 7,500, whereas higher-end hotels faced a GST rate of 28% for tariffs above INR 7,500. The study emphasized the need for hotels to adapt their pricing strategies to remain competitive under the new tax structure.

4. Comparative Analysis of Pre and Post-GST Scenarios

A study by Parmar (2013) examined the "Impact of GST on Hotel Industry," providing a comparative analysis of the tax burden before and after GST implementation. The research found that while GST simplified the tax structure by consolidating various taxes, the overall tax incidence for some hotels increased, necessitating adjustments in their financial planning and pricing strategies.



5. Broader Economic Implications

A literature review by the International Journal of Creative Research Thoughts (2020) discussed the broader economic implications of GST on various sectors, including the hotel industry. The review suggested that while GST aimed to create a unified tax system, its impact varied across different industries, with the hotel sector experiencing both challenges and opportunities in adapting to the new tax regime.

6. Regional Focus on Gujarat

While specific studies focusing solely on Gujarat are limited, the available literature indicates that the state's hotel and restaurant industry experienced effects similar to the national trends post-GST implementation. Businesses in regions like Anand, Nadiad, and Ahmedabad have had to navigate the complexities of the new tax system, adjusting their operations and pricing strategies accordingly.

Research Gap

While several studies have explored the impact of GST on the hospitality sector at a national level, there is limited research specifically focusing on Gujarat's restaurant and hotel industry. Existing studies analyze GST's effects on profitability, pricing, and compliance but often lack a region-specific perspective, particularly addressing small and mid-scale businesses. Additionally, research has not sufficiently examined the long-term adaptations of hotels and restaurants to GST, including strategic pricing, tax compliance challenges, and customer perception in Gujarat. This study aims to bridge these gaps by providing a focused analysis of GST's impact on various operational and financial aspects of the restaurant and hotel industry in Gujarat.

Research Objectives

1. To analyze the impact of GST on pricing strategies and revenue generation in the restaurant and hotel industry in Gujarat.
2. To assess the effect of GST on compliance costs and administrative burdens for businesses in the sector.
3. To evaluate customer perception regarding GST implementation in restaurants and hotels in Gujarat.

Research Methodology

Research Design

This study will adopt a mixed-method research approach, combining both qualitative and quantitative methods to gain a comprehensive understanding of GST's impact.

Method of Data Collection

For the study purpose primary data has collected through the structured questionnaire.

Sampling Size and Method

For the research purpose researcher has structured questionnaire containing various factors which can be affected by GST. Researcher collected data of 500 hotel and restaurant owners of Gujarat from 5 cities Ahmedabad, Vadodra, Surat, Anand and Nadiad through structured questionnaire.

Sampling Method

Population: Restaurants and hotels operating in Gujarat, including small, mid-sized, and luxury establishments.

Sampling Technique: A stratified random sampling method will be used to ensure representation across different categories of businesses (budget hotels, luxury hotels, small restaurants, chain restaurants, etc.).



Sample Size: Approximately 100-150 businesses across major cities in Gujarat (Ahmedabad, Vadodara, Surat, Rajkot, etc.).

Data Collection Methods

Primary Data: Collected through structured surveys and interviews with restaurant and hotel owners, managers, and customers.

Secondary Data: Sourced from government reports, research journals, hotel industry financial reports, and GST policy documents.

Data Analysis Techniques

Quantitative Analysis: Statistical tools such as SPSS and MS Excel will be used for data analysis, including descriptive statistics, regression analysis, and comparative analysis of pre-GST and post-GST financials.

Qualitative Analysis: Thematic analysis of interviews with industry stakeholders to understand their perspectives on GST implementation challenges and adaptations.

Data interpretation

Impact on Pricing Strategies

Prior to GST, businesses were subject to multiple indirect taxes, including VAT, service tax, and luxury tax. The introduction of GST consolidated these taxes into a single structure with tax slabs of 5%, 12%, and 18%, depending on the type and size of the establishment.

The study reveals that small restaurants benefited the most, as their tax burden reduced from 8-10% to 5%. This led to minor price reductions, making dining more affordable for customers. Mid-sized restaurants experienced a neutral effect, as their tax rate remained around 12%, similar to the pre-GST regime. Meanwhile, luxury hotels and fine-dining restaurants saw a slight decrease in their tax burden, from 20-25% to 18%, making them more competitive.

Although the new tax structure reduced tax cascading, some businesses struggled with the classification of GST slabs, especially when dealing with mixed services (e.g., food and lodging). Despite initial confusion, most businesses adapted their pricing models to comply with GST rates.

1. Compliance and Administrative Burden

The introduction of GST initially posed compliance challenges for businesses. Previously, restaurants and hotels had to file VAT and service tax separately, which varied by state. With GST, businesses had to transition to an online tax filing system, requiring investment in software, training, and accounting services.

Survey responses indicate that 50% of businesses reported an increase in compliance costs, particularly for accounting and tax filing services. The cost of maintaining GST-compliant billing software and hiring trained accountants increased by 40-50% in the initial phase. Small businesses, in particular, found the transition challenging, as they had limited resources to invest in new technology and expertise.

However, over time, businesses reported greater efficiency and ease in tax filing. The automation of GST filing reduced paperwork and improved financial transparency. Additionally, input tax credit (ITC) benefits helped some businesses recover indirect tax payments, leading to better financial management.

2. Revenue Trends: Pre-GST vs. Post-GST

The revenue analysis suggests that GST did not negatively impact overall business performance. Small restaurants saw a 5% increase in revenue, while mid-sized and luxury establishments experienced a 3-10% growth.

This growth can be attributed to two main factors:



Standardized tax rates, which eliminated ambiguity in pricing. Customer trust and transparency, as bills explicitly mentioned GST charges.

Luxury hotels benefited from a reduced GST rate of 18% (compared to the earlier 20-25%), which made their pricing more attractive, especially for tourists. On the other hand, mid-sized businesses had a more stable revenue pattern, as their tax rate did not change significantly.

1. Customer Perception and Spending Behavior

Customer awareness regarding GST remains moderate, with 45% of customers understanding and accepting GST charges on their bills. However, 35% of customers expressed dissatisfaction, mainly due to price adjustments that some restaurants made to accommodate GST.

Spending behavior largely remained unchanged post-GST, with luxury dining witnessing a slight increase (20%), as customers perceived tax-inclusive pricing to be more transparent. Small and mid-sized restaurants saw stable footfall, indicating that GST did not deter customers from dining out.

2. Challenges Faced by Businesses

Despite the benefits of a unified tax system, businesses encountered challenges in adapting to GST: High initial compliance costs (reported by 50% of businesses).

Complex classification of GST slabs (5%, 12%, 18%), causing confusion in tax calculations (40% of respondents).

Technical issues in online tax filing (reported by 35% of businesses).

Customer resistance to price adjustments (30% of businesses).

Although these challenges were significant during the initial implementation phase, businesses gradually adjusted, and compliance burdens reduced over time.

Conclusion

The implementation of the Goods and Services Tax (GST) has significantly impacted Gujarat's restaurant and hotel industry, bringing both challenges and benefits. By replacing multiple indirect taxes with a unified system, GST has simplified tax administration, improved transparency, and eliminated the cascading effect of taxes.

The study reveals that small and mid-sized restaurants benefited from a lower or stable tax rate, which helped maintain affordability for customers. Luxury hotels and fine-dining restaurants saw a slight reduction in taxation, making them more competitive. While initial compliance costs increased due to the need for digital tax filing and accounting upgrades, businesses gradually adapted, and the efficiency of tax administration improved over time.

Revenue trends indicate that GST did not negatively affect business performance, with most establishments reporting stable or slightly increased earnings. Customer perception towards GST remains mixed—while many appreciate the transparency, some still express concerns about price adjustments. Spending behavior has largely remained unchanged, suggesting that GST has not deterred consumers from dining out or booking hotels.

Despite some challenges, such as high initial compliance costs, classification complexities, and customer resistance to price changes, the long-term impact of GST on the restaurant and hotel industry in Gujarat appears positive. The new taxation system has streamlined business operations, encouraged compliance, and enhanced financial transparency, contributing to the overall growth of the hospitality sector.

Going forward, further refinements in GST policies, increased awareness programs for both businesses and customers, and continued technological advancements in tax filing can help maximize the benefits of GST. Overall, the GST reform has paved the way for a more structured and efficient taxation framework in Gujarat's hospitality industry, fostering sustainable business growth and economic stabilizer



Reference

- Bunde, H. V. (2019). The study of Impact of GST on Hotel Industry. Retrieved from <https://www.inspirajournals.com/uploads/Issues/191106685.pdf>
- Faizanbhai, M. (2019). Impact of GST on various aspects of restaurant and hotel business in Anand and Nadiad District, Gujarat state. Retrieved from <https://www.ijmdrr.com/admin/downloads/17112023ijmdrr%20Aug%202017.pdf>
- GAP iNTERDISCIPLINARITIES. (2019). A Study on Impact of GST on Hotel Industry with Reference to Ahmedabad City. Retrieved from <https://www.gapinterdisciplinarity.org/res/articles/%2887-91%29%20A%20STUDY%20ON%20IMPACT%20OF%20GST%20ON%20HOTEL%20INDUSTRY%20WITH%20REFERENCE%20TO%20AHMEDABAD%20CITY.pdf>
- Institute of Cost Accountants of India. (2019). Critical Aspects of GST – Hotel Industry. Retrieved from https://icmai.in/TaxationPortal/upload/IDT/Article_GST/170.pdf
- International Journal of Research in Humanities and Social Sciences. (2021). Impact of Goods and Service Tax (GST) On Hotel Industry in India. Retrieved from https://www.raijmr.com/ijrhs/wp-content/uploads/2021/05/IJRHS_2021_vol09_issue_5_Eng_02.pdf
- Parmar, H. (2013). Impact of GST on Travel and Tourism Industry. Retrieved from <https://www.slideshare.net/HirakParmar/impact-of-gst-on-travel-and-tourism-industry>
- TaxGuru. (2023). GST Impact on Hotel & Restaurant Services: 55th GST Council Recommendation. Retrieved from <https://taxguru.in/goods-and-service-tax/gst-impact-hotel-restaurant-services-55th-gst-council-recommendation.html>
- Varalakshmi, P., & Suresh, B. (2018). Goods and Services Tax in India – Paradigm Shift in Taxation. International Journal for Research in Applied Science & Engineering Technology, 6(1), 2615-2621.



CASH MANAGEMENT: A STRATEGIC TOOL FOR EVALUATING FINANCIAL PERFORMANCE

By

Nikhilkumar Rohit

PhD Scholar

&

Dr. Niki Sharma

Assistant Professor

JG University, Ahmedabad, Gujarat

Abstract

Cash management is one of the essential elements of financial strategy with direct implications on liquidity, solvency, profitability and operating efficiency of any organization. Cash management as a strategic tool to assess financial performance is investigated in this study with emphasis on its implications for significant financial ratios, working capital optimization and risk management. Proper cash management guarantees companies to fulfill short-term commitments, support growth and reduction of financial risks. It increases liquidity by synchronizing cash inflows and outflows, less reliance on external funding and optimal utilization of excess cash. The research emphasizes the use of digital software, automation and strategic forecasting to enhance financial resilience. Empirical data from market leaders illustrate the link between rigid cash control and better financial performance. Meeting challenges like forecasting inefficiencies and economic fluctuations outside of its control, the article recommends data-driven strategies and technology implementation. Ultimately, successful cash management is a key driver of financial sustainability and competitiveness.

Keywords: Cash Management, Liquidity, Financial Performance, Working Capital, Risk Mitigation.

Introduction

Cash management is one of the fundamental parts of financial planning, securing liquidity, streamlining working capital and optimizing total financial wellness. It requires cash inflow and outflow planning, cash controlling and monitoring to bring a balance that maximizes profitability while ensuring optimum liquidity. Effective management of cash enables firms to settle short-term obligations, finance opportunities for expansion and limit financial risks.

The utility of cash flow in measuring financial health lies in its ability to provide a snapshot of an entity's liquidity position and business performance in real time. Favorable cash flow shows a firm's capacity to continue operations, whereas unfavorable cash flow can mean financial trouble. In contrast to profitability, which tends to be subject to accounting manipulation, cash flow gives a clear picture of financial strength and facilitates decision-making by stakeholders.

This article seeks to investigate cash management as a strategic measure of measuring financial performance. It investigates essential components of cash flows, how they affect liquidity and profitability and cash management best practices. The scope entails reviewing cash flow statements, discovering ways to optimize cash reserves and comprehending the effects of effective use of cash towards achieving sustainable financial development.

Concept of Cash Management

Cash management is a process of procuring, processing and utilizing cash flows properly to meet liquidity requirements and achieve financial performance at the best possible level. Cash management involves cash inflows from operations, investment and financing and cash outflows in operating expenses, debt repayment and investment in capital. Most essential elements of cash management are cash forecasting, cash budgeting, cash payment and collection policy, cash management and investing idle funds.



The main aim of cash management is to achieve an optimal balance of cash favourable to operating requirements and minimizing idle cash. It is to settle liabilities quickly, enhance liquidity, maximize returns on excess cash and minimize financial risks. Effective cash management also attempts to reduce borrowing costs, increase working capital efficiency and promote business expansion.

In the short term, effective cash management provides smooth daily operations by precluding cash shortages and maintaining the firm in a solvent position. It helps firms manage payables and receivables efficiently, reducing the utilization of short-term loans. In the long run, tactical cash management improves financial stability by providing capital investments, maintaining profitability and enhancing creditworthiness. With balanced cash flows aligned with business goals, companies can enhance financial strength and fuel sustainable growth.

Cash Management and Financial Performance

Effective cash management is a critical determinant of the financial performance of an organization because it influences the liquidity, solvency, profitability and operational efficiency. Optimizing the money flow allows firms to be financially fit, optimize their efficiency and attain improved key financial ratios.

Both liquidity and solvency are the two most important financial health measures and both of them are directly affected by cash management. Liquidity refers to the ability of a company to make timely short-term payments, while solvency is an indicator of its ability to endure in the long run. Cash shortages due to poor cash management lead to late payment, poor supplier relations and increased cost of borrowing. Alternatively, a good cash management system yields a steady cash flow, keeping external financing at a minimum and reducing the risk of financial distress. The lower Cash Conversion Cycle (CCC) indicates good cash management, reduces the cost of holding and improves profitability. Additionally, operating cash flow ratio analyses a company's ability to produce cash by means of core business operations and remains financially sound. With an improvement in such ratios, corporations increase investor trust and financial reliability.

In short, cash management is a tactical tool that has a direct impact on liquidity, solvency, profitability and financial efficiency. Organizations with effective cash management practices enhance financial performance by reducing risks, enhancing operational flow and optimizing key financial ratios. A disciplined cash management ensures long-term sustainability and competitive advantage in changing business environments.

Strategic Approaches to Cash Management

Effective cash management involves a strategic process to provide liquidity, improve financial performance and maintain business growth. Organizations use several methods to maximize cash flow, minimize risks and enhance decision-making. The main strategies involve cash budgeting and forecasting, working capital optimization and using technology and digital tools.

Cash budgeting and forecasting are essential for ensuring financial stability. An effective cash budget allows companies to plan for future cash inflows and outflows and ensure adequate funds to pay bills. Forecasting enables the estimation of short-term and long-term cash needs, which allows companies to manage potential liquidity risks. Historical data, market trends and predictive analytics are used for accurate forecasting, which allows firms to efficiently manage cash and use resources effectively.



Improved working capital optimizes cash flows and financial stability. Firms opt for these to manage pivotal assets like accounts receivable and stock. Policies vary from collection acceleration of the accounts receivables to terms improvements on favourable credit from their respective suppliers as well as curtailing surplus inventories. It becomes possible through balance maintenance with adequate assets relation to liabilities at best, boosting liquidity levels while decreasing their financial costs besides operational efficiency.

The use of technology in cash management has revolutionized financial operations, allowing real-time tracking and automation of cash processes. Digital solutions like enterprise resource planning (ERP) systems, cash flow management software and artificial intelligence (AI)-based analytics improve accuracy and efficiency. Automated cash management solutions allow for improved fund allocation, fraud detection and regulatory compliance. Digital payment systems and blockchain technology also enhance transaction speed, security and transparency, enhancing overall financial performance.

With a combination of such strategic methods, organizations can build stronger cash management practices, becoming financially stable with sustainable growth. A proactive, data-driven practice of cash management is a basic requirement for evaluating and enhancing general financial performance.

Challenges in Cash Management

Cash management is the practice of managing a company's financial assets to maximize liquidity while minimizing costs and risks [10]. It involves collecting revenues, managing payments and maintaining any surplus funds [10]. Effective cash management helps companies sustain operations, even in unpredictable times and strategically position themselves for future growth [10]. However, several challenges can hinder effective cash management they are as below:

- Change in economic situations can lead to sudden decline in turnover which can result in uneven cashflow.
- Recovery of payments from takes more time and resources, delayed payments from customers leads to delayed payments to vendors, it adversely affects reputation of organisation.
- Some unpredicted events such as fire, theft, fraud, can quickly deplete cash reserves.
- Sudden changes in regulatory framework such as tax laws, industry specific norms changes can impact cashflows.
- Lack of financial visibility can hinder cash management.
- Cash management is all about forecasting of cashflow but failure in predicting may result in insufficient cash flows.
- Lack or insufficient data for forecasting of cash flow, can negatively impact the planning process and lead to flawed cash flow forecasts.
- Insufficient cash reserve for overcoming market pressures, unexpected expenses, or decreases in revenue.

To overcome these challenges, companies can integrate solid Financial Planning & Analysis (FP&A) tools for forecasting, reporting and driver-based scenario planning; focus on working capital Key Performance Indicators (KPIs) directly correlated to cash; focus on operational and technological enhancements to cut down on overhead spend; develop a plan and ensure solid business fundamentals before applying for loans; create robust review processes to keep tabs on cashflow ongoing; and turn to a financial consultant for guidance[5]. Leveraging the latest technology to automate workflows in finance and treasury is also becoming critically important [3].



Case Studies and Empirical Evidence

Effective cash management is a key contributor to improved financial performance. Some companies have proven strategic cash management practices that enhanced their profitability and liquidity to a great extent.

JP Morgan Chase: This firm implemented a centralized cash management system to maximize visibility into global cash positions. Through the utilization of real-time analytics, the bank maximized its cash flow forecasting and enhanced decision-making capacities, enhancing liquidity management, decreasing costs and overall financial operation [8].

HSBC: HSBC used virtual account management to automate reconciliation processes for corporate customers. It facilitated enhanced cash inflow and outflow control with minimal manual intervention, leading to increased efficiency, lowered reconciliation time and improved corporate customer liquidity forecasting [8].

ITC & Britannia: ITC and Britannia have been known to have high cash ratios, which reflect good solvency [9]. ITC, in fact, had a cash ratio consistently higher than the industry average, which reflects a liberal working capital policy [9].

Lupin Ltd: A case study of pharmaceutical firm Lupin Ltd identified that successful cash management is important for business success [7]. The research examined different cash management ratios and concluded that the cash management position of Lupin Ltd was in order during the research period [7].

NBFCs: Research on Non-Banking Financial Companies (NBFCs) in India, with a focus on Indiabulls Housing Finance Ltd., highlighted that increasing knowledge and skills in cash flow management is crucial for business survival and development [4].

The value of cash management is revealed when there are financial crises. The 2008 global financial crisis unveiled a number of companies with weak liquidity management, like Lehman Brothers that failed as a result of excessive borrowing and a failure to control short-term cash commitments. Companies like Johnson & Johnson and Coca-Cola survived the crisis by adhering to prudent cash flow management, holding available credit lines and spreading revenues to support operations.

Various industries have distinct cash management requirements and procedures. Competitive market and regulatory requirements of an industry can considerably impact cash management policies [3].

In the FMCG industry, how well a company is able to sell products can decide its turnover and not how much it produces. Such companies are able to make cash quickly, sometimes even with negative working capital [9].

In Pharmaceutical Firms Efficient cash management is critical because of the need to reduce investment in cash without jeopardizing the liquidity [7].

These illustrations highlight that sound cash management is not just a matter of liquidity protection but an instrument of financial stability, risk reduction and expansion. Proactive management of cash flows by companies will cause them to perform better than their counterparts, especially in times of economic uncertainty.



Future Scope of Study

Future studies can investigate the effect of new technologies like artificial intelligence and block chain on cash management effectiveness. The contribution of economic cycles, regulatory developments and sector-specific cash management practices needs to be examined further. Cross-sectional studies across industries and regions can give more insight into the effect of cash management on financial performance. Moreover, exploring the incorporation of ESG (environmental, social, and governance) factors into cash management practices may be a fruitful area of research in the future. Investigating the behavioral dimensions of financial managers in handling cash and investment can also increase strategic cash management practices.

Conclusion and Recommendations

This research identifies the essential role of cash management as a strategic tool in measuring financial performance. Sound cash management maximizes liquidity, optimise working capital and achieves financial stability. The research findings show that companies with good cash management strategies experience improved profitability, maintain solvency and avoid financial risks. Proper forecasting, cash flow alignment and effective investment of excess cash significantly lead to improved overall financial well-being. The research also highlights the role of digitalization in automating cash management procedures, eliminating errors and enhancing the quality of financial decisions.

In order to maximize financial performance, companies need to implement strategic cash management best practices. These involve precise cash flow forecasting, having optimal cash reserves, using electronic payment systems and real-time monitoring mechanisms. Companies must also incorporate automated financial systems to ensure greater transparency and efficiency. Having strong internal controls and periodic financial reviews also guarantee liquidity stability. Optimising receivables and payables, minimizing idle cash and utilizing short-term investments also have a substantial impact on cash flow efficiency.

References

- Aggarwal, A., & Sharma, A. (2024). A study on cash management practices in State Bank of India: Insights and recommendations. *International Journal of Professional Business Review*, 9(3), e04874. <https://doi.org/10.26668/businessreview/2024.v9i3.4874>
- Anbarasan, S. (2023). A study on impact of cash management of firm profitability with reference to Shardlow India Ltd company [Master's thesis, Sathyabama Institute of Science and Technology]. https://sist.sathyabama.ac.in/sist_naac/aqar_2022_2023/documents/1.3.4/mba-mba-batch%20no-18.pdf
- Beena, P. L., Gokarn, S., & Tandon, A. (n.d.). Indian case studies. In *Investment strategies in emerging markets* (pp. 149-156). UK Department for International Development. https://assets.publishing.service.gov.uk/media/57a08cc7ed915d3cfd0015e8/dr_c05_india.pdf
- Bhat, Z. A. (2022). A study on cash management of NBFC in India with special reference to Indiabulls Housing Finance Ltd. *Journal of Internet Banking and Commerce*, 26(7). <https://www.icommerceland.com/open-access/a-study-on-cash-management-of-nbfc-in-india-with-special-reference-to-indiabulls-housing-finance-ltd.pdf>
- Bridgepoint Consulting. (n.d.). Cash flow management challenges & pain points. Retrieved from <https://bridgepointconsulting.com/insights/cash-flow-management-challenges-pain-points-mitigation-tips/>



- Hitachi. (n.d.). Hitachi Cash Management Services Pvt. Ltd. Retrieved from https://hitachi.co.in/about/hitachi/directory/group_companies/hcms.html
- Nag, A. K. (2014). Cash management of a pharmaceutical company: A case study of Lupin Ltd. *The Management Accountant*, 49(3), 86-94. <https://icmai.in/Knowledge-Bank/upload/case-study/2014/Empirical-study.pdf>
- Nucleus Software. (n.d.). Revolutionizing corporate cash management in the digital age. Retrieved from <https://www.nucleussoftware.com/blog/revolutionizing-corporate-cash-management-in-the-digital-age/>
- Sharma, D. K. (2018). Cash management in fast moving consumable goods (FMCG) sector in India – A study based on selected FMCG companies. *International Journal of Creative Research Thoughts*, 6(1), 1916-1924. <https://www.ijcrt.org/papers/IJPUB1801306.pdf>
- Stripe. (n.d.). Cash management 101: A quick guide for businesses. Retrieved from <https://stripe.com/resources/more/cash-management-101-a-quick-guide-for-businesses>
- Trovata. (n.d.). 5 primary challenges of cash management. Retrieved from <https://trovata.io/blog/5-primary-challenges-of-cash-management/>
<https://www.grammarly.com/>



NAVIGATING THE TURBULENT WATERS: AN IN-DEPTH ANALYSIS OF INDIA'S INSOLVENCY REGIME

By

Riddhi Suthar

Ph.D. Scholar

&

Dr. Urvi Gajjar

Assistant Professor

JG College of Commerce, Ahmedabad, Gujarat

Abstract

This paper provides an in-depth analysis of India's changing insolvency regime with special emphasis on the revolutionary role of the Insolvency and Bankruptcy Code (IBC) of 2016. It looks back at the pre-IBC era, which was marked by scattered legislation, lengthy delays, and poor creditor rights, and analyzes the inefficiencies that made a change imperative. The research then explores the IBC's salient characteristics, including its emphasis on time-bound resolution, shift to a creditor-in-possession strategy, and the creation of regulatory body like the IBBI. The paper discusses the legislative framework, enforcement, and real-world efficacy of the IBC, assessing its success in streamlining insolvency processes, enhancing creditors, and encouraging a more responsible lending culture. While acknowledging the role of the IBC, the analysis also evaluates issues such as the ability of adjudicating authorities, the extent of conflict of interest among members in the Committee of Creditors, and the treatment of operational creditors. The study culminates in proposing continuous updates to address such problems and attain an even fairer and effective insolvency solution system, particular for MSMEs and also in some fields like the financial sector.

Key words: Insolvency, Bankruptcy, IBC, Corporate Insolvency Resolution Process (CIRP), Resolution Plan, Liquidation

Introduction

In the dynamic landscape of economic systems, the insolvency system plays a vital role in shaping the future of distressed businesses and the financial stability of a nation. The insolvency framework has undergone a significant transformation in recent years, as India introduced the Insolvency and Bankruptcy Code (IBC) in 2016. This pivotal moment marked the beginning of a new era in handling financial difficulties, focusing on making the insolvency process faster and more efficient. This paper aims to discuss India's Insolvency resolution system from historical context to recent scenario, highlighting the regulations, challenges.

Pre-Insolvency Regime in India: An Era of Uncertainties

Prior to commencement of the Insolvency and Bankruptcy Code (IBC), 2016, India's system for dealing with failing businesses was disorganized. It took a very long time to resolve cases and left creditor with little power to recover their money, while businesses struggling with debt found it hard to get help. Under the pre-IBC regime, there was no clear and time-bound legal process in place which resulted in inefficiency, delay and a general lack of certainty during the resolution process.

One of the main shortcomings of the pre-insolvency regime was the lack of a specific legislation dealing with the issues of insolvency and bankruptcy. Instead, insolvency proceedings were fragmented across different statutes like Companies Act 1956, Sick Industrial Companies Act 1985, Recovery of Debts Due to Banks and Financial Institutions Act 1993, SARFAESI Act 2002, etc, resulting in complex



and tiresome legal framework (Anant and Mishra, 2019). The Sick Industrial Companies (Special Provisions) Act, 1985 (SICA) was a measure towards tackling company sickness but was weak in having an effective and timely resolution mechanism (Pardhasaradhi, 2020). At this time the Board for Industrial and Financial Reconstruction (BIFR) made a serious attempt to revive the companies that were financially stressed. But its effectiveness was affected by lack of a clear and time-bound process.

Overall, pre-insolvency regime in India was disorganized and there was lack of comprehensive legal framework, which resulted into inefficiencies and hinderance in the timely resolution of distressed assets. The shortcomings of this era laid the foundation for the transformative changes introduced by the IBC in 2016, aiming to create a more efficient, transparent and equitable insolvency resolution framework for India (Anant & Mishra, 2019).

Transformative Paradigm - The Insolvency and Bankruptcy Code (IBC)

The introduction of the Insolvency and Bankruptcy Code (IBC) in India in 2016 was a turning point, as it has integrated the fragmented laws related to insolvency in a single code. During pre-IBC era there was a delay in resolution process due to lack of specialist legal infrastructure and lack of timebound process. The IBC sought to resolve these issues through the delivery of a time-bound and formal mechanism for the resolution of stressed assets, an entrepreneurial culture and balancing creditors' and debtors' interests.

The IBC brought important changes in the earlier insolvency regime. It has given power to initiate insolvency process to creditors making change from debtor-in-possession to creditor-in-possession (Kattadiyil & Islamov, 2021). The Code mandated Corporate Insolvency Resolution Process (CIRP) for companies and individuals and the Bankruptcy Resolution Process (BRP) for partnership firms and individuals.

The IBC emphasize on a time-bound resolution, taking into account the importance of prompt decision-making in the case of distress. The CIRP has a 180-day timeline, extendable by another 90 days in exceptional situations. The time-bound process ensures effective process of resolution and reduces the burden of cost on the stakeholders (Srivastava, 2022).

Insolvency and Bankruptcy Board of India (IBBI) was established under IBC, 2016 to regulate the insolvency professionals, insolvency professional agencies and information utilities. The Code also designates National Company Law Tribunal (NCLT) for cases of corporate insolvency and the Debt Recovery Tribunal (DRT) for cases of individual insolvency. These adjudicating institutions have an important role to play in ensuring timely and fair resolution of insolvency cases.

Legislative Framework of the IBC

The IBC codified and supplemented the existing legislations, enacting a uniform legal framework for resolution of insolvency. The Code replaced the outdated Sick Industrial Companies (Special Provisions) Act, 1985 and opened the doors to a newer and more streamlined resolution process. The legislative regime is established four-tiered framework consisting of the Insolvency and Bankruptcy Board of India (IBBI), Insolvency Professionals (IPs), Adjudicating authorities and Information Utilities (Pardhasaradhi, 2020).

The Code contains principles like parity of treatment for creditors, security or priority of payment for secured creditors and realization of the value of assets. The idea of a resolution plan, wherein a potential resolution applicant submits a proposal for the revival or restructuring of the company, is a vital



component. Where the resolution does not work out, the Code allows for initiation of the process of liquidation, with an orderly and transparent distribution of assets.

Implementation of the IBC

The application of the IBC has brought about a revolutionary impact on the regime of insolvency. The NCLT and DRT, as adjudicating authority, ensures that the resolution process follows the stipulated timeframes and norms of the Code. The IBBI monitors and regulates the registration of insolvency professionals, insolvency professional agencies and information utilities, which ensures professionalism and accountability in the resolution process.

IBC has witnessed several modifications and amendments being introduced to suit practical issues as also to make it more efficient. The Committee of Creditors (CoC) of the financial creditors is an instrumental party in making key decisions during the course of insolvency proceedings. Voting powers and procedures of voting have undergone changes and enhancements in terms of time to ensure a balance between protecting creditors' interests on one side and a viable solution on the other side.

Enforcement of the IBC has been instrumental in setting a precedence for the settlement of high-profile insolvency matters, including the likes of India's leading corporate players. Such high-profile cases as the settlement of Bhushan Steel, Essar Steel and Ruchi Soya Industries have not only established the success of the Code but also settled contentious legal questions, leading the way towards future insolvency settlements.

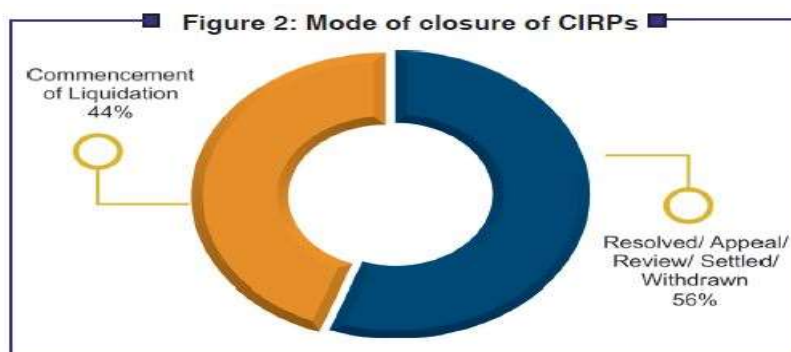
Practical Implications of the IBC

The practical impact of the IBC is wide-ranging and numerous, extending to stakeholders across the economic spectrum. For creditors, the IBC gives them a predictable and time-limited framework for recovery of dues, minimizing time and expenses taken by lengthy court cases. The transparent process of resolution helps in realizing the best value out of distressed assets, both for secured and unsecured creditors.

The IBC has also induced a culture of responsibility and accountability among corporate debtors. Threatened with the possibility of insolvency, debtors have an incentive to cooperate and engage constructively with the resolution process to avoid negative outcome of liquidation. Such a shift in culture has precipitated a pragmatic and collaborative process of financial distress resolution that works towards reviving viable business ventures.

The insolvency professionals, being a very important part of the resolution process, play a significant role in running the affairs of the debtor during the resolution period. Their qualifications and impartiality assist in making the resolution process efficient. The availability of a proper number of qualified insolvency professionals and potential conflicts of interest are challenges that need consistent attention towards functioning of the IBC appropriately.

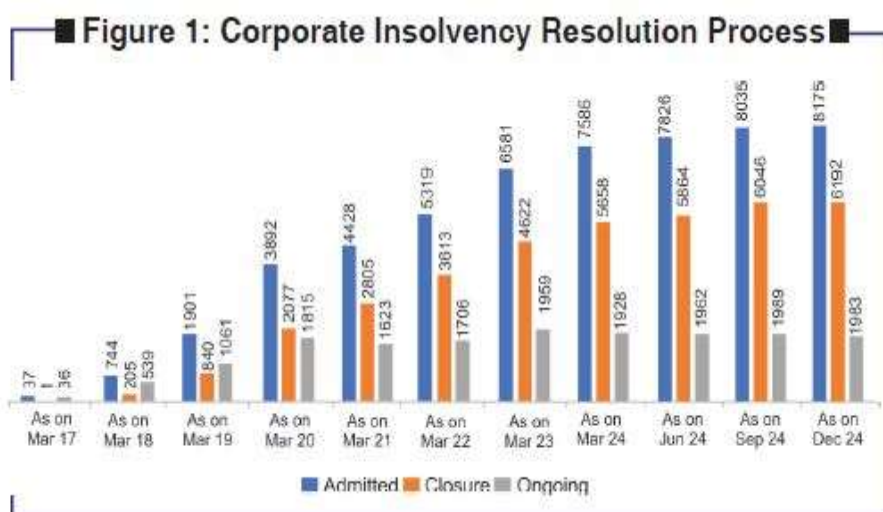
Key Statistics



Source: Insolvency and Bankruptcy Board of India (IBBI), 2024



As per the data shown in Figure 1: Corporate Insolvency Resolution Process shows increasing trends in total CIRP cases admitted since the implementation of IBC. The total admitted cases as on March 2017 was 37 and it increased to 8,175 by December 2024. The number of closed cases has also increased, reaching 6192 by December 2024. No of ongoing cases were 36 in March 2017 and it increased over the years upto 1983 as of December 2024. The data shows fluctuations in the number of admitted, closed and ongoing cases at different intervals, with notable increases between March 2020 and December 2024.



Source: Insolvency and Bankruptcy Board of India (IBBI), 2024

As per the data shown in Figure 2 presents the distribution of CIRP closures based on different modes. 44% of the cases have resulted in initiation of liquidation, while 56% of the cases have been closed through resolution, appeal, review, settlement, or withdrawal. The data represents the overall trend in how CIRP cases are concluded under the Insolvency and Bankruptcy Code (IBC).

Positives of the IBC

The IBC has received widespread appreciation for its positive impact on the insolvency environment in India. Its most notable achievement is the instituting of a time-bound resolution process, unlike the slow and indefinite character of insolvency proceedings under the previous system (Kattadiyil & Islamov, 2021). The strict timelines not only speed up the resolution but also keep the financial burden on the stakeholders to a minimum. The transition to creditor-centricity is another improvement provided by the IBC. This empowerment of the creditors will also result in more promptness towards addressing the issues of insolvency, for efficient intervention and quicker resolution of cases. Responsible lending has also been encouraged because, with their improved powers, the creditors will monitor the fiscal wellbeing of borrowers in a far stricter manner than was possible hitherto. The open and competitive bidding procedure for the purchase of troubled assets under the resolution plan has resulted in optimal price maximization of these assets. This not only serves the creditors by maximizing the potential for recovery but also promotes the general welfare of the economy by maintaining and rebuilding viable enterprises.

The IBC has also encouraged the creation of a dynamic market for distressed assets, both domestic and international investors. The opportunity to buy distressed assets at affordable prices has encouraged the growth of specialist funds and investors ready to be part of the resolution process, injecting liquidity and expertise into the distressed asset market.



Critical Analysis of the IBC

Though the IBC has been greeted as a path-breaking legislation, it is not without its criticisms and challenges. One of the main issues is the efficiency and capacity of the adjudicating authorities like the NCLT and DRT (Ayilyath, 2019). The rising number of cases and the necessity to dispose of them expeditiously at times results in delays, defeating the very purpose of the time-bound strategy contemplated by the Code.

The operation of the CoC, consisting of financial creditors, has also come under a lens of suspicion. The centralization of decision-making authority in a few big creditors could potentially result in conflict of interest and may not be representative enough of the diverse interests of all the stakeholders. Finding the right balance in the structure and decision-making procedures of the CoC is an essential issue for fair operation of the IBC.

Another important one is the resolution of operational creditors in the process of resolution. The IBC gives precedence to financial creditors above operational creditors and, in so doing, places the latter in a disadvantageous position (Srinivasan, 2020). Discriminatory treatment of various categories of creditors causes doubts regarding the fairness and representativeness of the resolution process. The rigidity of the Code in handling particular sectors, the financial sector being one of them, has also been the subject of debate. The peculiar character of financial contracts and the necessity of a specialized response in handling financial institutions could necessitate changes or sectoral regulations in order to balance and make the resolution process more effective.

The impact of the IBC on micro, small and medium enterprises (MSMEs) has been contentious. While the Code provides for a quick and smooth insolvency resolution process for MSMEs, the actual world problems of these entities, including low awareness and financial means, need to be tackled to make the insolvency regime inclusive.

Overall, the Insolvency and Bankruptcy Code has indeed brought very positive changes in terms of time bound resolution, empowerment of creditors and value maximization of stressed assets. However, the issues and criticisms, ranging from the efficiency of adjudicating authorities to the treatment of various classes of creditors, necessitate a continuous and dynamic approach. The evolution of the IBC via amendments and refinement is a testimony to its resilience to practical realities and ongoing attention and proactive approach are necessary in order to see the Code thrive in its purpose.

Current Trends in Corporate Insolvency Resolution Process in India

Within the constantly changing business environment of India's corporate insolvency resolution, some significant trends have come into play, echoing both the flexibility of the system and the ever-changing business world. As per the latest estimations, some of the important trends are dominating the Corporate Insolvency Resolution Process (CIRP) within the nation.

One of the most significant trends is the growing dependence on technology and digital platforms in insolvency resolution. The enactment of the Insolvency and Bankruptcy Code (IBC) in 2016 put in place a better and transparent mechanism of resolution and technology has been instrumental in making these goals a success. Electronic interfaces have been introduced for communication, information transmission and e-auctions of stressed assets, resulting in efficiency and saving time for resolution.

Another interesting trend is the growing significance of pre-packaged insolvency resolution processes. With an eye towards quicker and cheaper resolutions, the IBC has undergone changes to bring



in a pre-packaged framework. This method incorporates debtor-creditor negotiations prior to seeking out formal insolvency proceedings and it gives a more consensual as well as time-saving resolution mechanism. Pre-packs try to balance saving healthy businesses and protecting the interests of creditors.

Besides, an increasing focus is being put on the Committee of Creditors (CoC) in the decision-making process in the insolvency resolution. Trends of late suggest a move towards more cooperative and informed decision-making by the CoC such that the collective experience of creditors is utilized to unlock the maximum possible value of distressed assets. Such a trend goes with the overall agenda of increasing transparency and accountability in the insolvency resolution process.

Another prominent trend is the acknowledgment of the special problems confronting Micro, Small and Medium Enterprises (MSMEs). The IBC has been revised to offer a less stringent and speedy resolution process for MSMEs, given their special financial characteristics and business intricacies. The trend speaks of inclusiveness and acknowledges the important role MSMEs have to play in the Indian economy.

The influence of the COVID-19 pandemic has also touched corporate insolvency trends. Economic dislocations from the pandemic triggered a brief hold on insolvency proceedings to help alleviate business pandemic-related stress. After the period of moratorium, there has been heightened interest in containing the economic spillover of the pandemic in the insolvency resolution process, with stakeholders looking at the peculiar issues and uncertainty triggered by the world health crisis. In summary, the recent developments in the Corporate Insolvency Resolution Process in India are indicative of a responsive and evolving system. From the application of technology to achieve efficiency improvements to the growth of pre-packaged insolvency structures the environment is changing to accommodate the constantly evolving needs of the business and the creditors. With the IBC still growing, such trends reflect stakeholders' determination to promote a stronger, more transparent and inclusive insolvency resolution regime in India.

Conclusion and Recommendation

In Conclusion, the analysis of India's insolvency regime since the pre-Insolvency and Bankruptcy Code (IBC) era to recent trends in resolution of corporate insolvency reflects a trajectory of significant changes and on-going adaptations. The passage of the IBC in 2016 was watershed, with an aim to repair the inefficiencies and uncertainties which had hindered the previous insolvency regime. With emphasis on timely resolutions, creditor empowerment and establishment of specialist adjudicating authorities, the IBC sought to streamline the resolution process of financial distress to be more efficient and transparent.

The IBC has certainly brought about change for the better, including accelerating resolution timelines, maximizing asset value and instilling a culture of accountability among stakeholders. Milestone cases have proven its worth while also identifying areas where there is scope for improvement. But critical analysis reveals underlying issues, including the effectiveness of adjudicating authorities, handling of various classes of creditors and the unique dynamics of sectors like MSMEs and financial institutions.

Despite these challenges, recent innovation in the corporate insolvency resolution framework demonstrates the resilience and responsiveness of the system to new needs. Whether it is the use of technology to enable digital platforms and pre-pack insolvency structures, there is continued innovation among stakeholders in making the insolvency resolution system more efficient and accessible.



Through its journey in turbulent waters of insolvency, India has come a long way, but the journey to a healthy and equitable regime is still long. A vigilance, proactive measures and collaboration between stakeholders are needed to overcome present challenges, take advantage of future trends and see the insolvency framework evolve harmoniously with the changing economic landscape. Through innovation, fairness, accountability and transparency, India can follow a path towards more sustainable and resilient insolvency system that fosters economic growth and financial stability for decades to come.

References

- Anant, S., & Mishra, A. (2019). A study of insolvency and bankruptcy code and its impact on macro environment of India. *International Journal of Engineering Development and Research*, 7(3), 28-33. Retrieved from <https://www.ijedr.org>
- Ayilyath, M. (2019). Roadblocks under Insolvency and Bankruptcy Code, 2016 – Need for capacity building. SSRN. Retrieved from <https://ssrn.com/abstract=3440479>
- Goswami, P. (2023). Complexities arose in the Insolvency and Bankruptcy Code, 2016 during the pandemic. Retrieved from <https://ssrn.com/abstract=4338173>
- Indian Institute of Insolvency Professionals of ICAI (IIPI). (2021). Case studies of successful resolutions under IBC. New Delhi: IIPI. Retrieved from <https://www.iiipicai.in>
- Insolvency and Bankruptcy Board of India (IBBI). (n.d.). Insolvency and Bankruptcy Code, 2016 and related regulations. Retrieved from <https://ibbi.gov.in>
- Insolvency and Bankruptcy Board of India. (2025, January). From Chairperson's desk - Improving liquidation outcomes. Retrieved from <https://ibbi.gov.in/uploads/whatsnew/1885c0421a20cc4173386ba9c5dc3466.pdf>
- Jena, L. K., Paul, M., & Sahoo, K. (2020). Academic research effectiveness in higher education: Role of spirituality. *IPE Journal of Management*, 10(2), 2-21.
- Kamalnath, A. (2019). Corporate insolvency resolution law in India – A proposal to overcome the ‘initiation problem’ (Working draft). Retrieved from <https://ssrn.com/abstract=3387001>
- Kattadiyil, B. J., & Islamov, B. A. (2021). Analysis of outcomes of IBC on managing the economic development of India. *International Journal of Management (IJM)*, 12(7), 23-33. <https://doi.org/10.34218/IJM.12.7.2021.003>
- Kumar, D. (2019). The new corporate insolvency regime in India: A paradigm shift. *American Bankruptcy Institute Journal*, 38(April), 39-99. Retrieved from <https://abi.org>
- Mishra, A. K. (2023). IBC: Resilience to revolution. *The Chartered Accountant*, November 2023, 561-564.
- Mital, R. (2024). Improving liquidation outcomes under the Insolvency and Bankruptcy Code, 2016. *Insolvency and Bankruptcy News*, Oct-Dec 2024, 3-17. Insolvency and Bankruptcy Board of India (IBBI).
- Rastogi, A. (2021). Corporate restructuring and insolvency: Critical analysis of laws in India. *Law & Political Review*, 6, 81-110. Retrieved from <https://thelawbrigade.com/lpr>
- Ravi, A. (2015). The Indian insolvency regime in practice: An analysis of insolvency and debt recovery proceedings (Working Paper No. WP-2015-027). Indira Gandhi Institute of Development Research. Retrieved from <http://www.igidr.ac.in/pdf/publication/WP-2015-027.pdf>
- Singh, H. (2019). Pre-packaged insolvency in India: Lessons from USA and UK. Retrieved from <https://ssrn.com/abstract=3518287>
- Srinivasan, V. (2020). Liquidation value vis-a-vis dissenting financial creditors: Aftermath of Maharashtra Seamless and Orchid Pharma. SSRN. Retrieved from <https://ssrn.com/abstract=3595976>
- Srivastava, P. (2022). An analysis of corporate insolvency resolution process of Insolvency and Bankruptcy Code (IBC) 2016: Case study of selected companies (Doctoral dissertation). Shri Ramswaroop Memorial University, Uttar Pradesh



THE IMPACT OF ARTIFICIAL INTELLIGENCE ON ACCOUNTING PROFESSION: A REVIEW WORK

By

Dr. Ruchi S. Joshi

Assistant Professor

Shri H.K.Commerce College, Ahmedabad

Abstract

Artificial intelligence has great impact in every spheres of economy. The rapid integration of Artificial Intelligence (AI) into the accounting profession has transformed the industry in profound ways, optimizing traditional processes, increasing efficiency, and providing new avenues for decision-making. This paper aims to explore the impact of AI in accounting, focusing on its current applications, challenges, and future potential. By examining AI's influence on tasks such as data entry, audit processes, financial analysis, and fraud detection, the research evaluates how AI reshapes the profession, enhancing the accuracy and speed of accounting practices while addressing potential concerns such as job displacement, ethical issues, and data security. The basic Idea and various field of application of AI in accounting, has been discussed here. In this study the opinion of various reviewers are analyzed and a comparison is made to get the impact of AI in accounting profession. In future business world vast data processing and its interpretation is required. Implementation of AI is obligatory and Accountants and professionals need to develop their skills. In this study discussion have been made on requirement of AI in accounting profession through analyzing its merits and demerits. In conclusion the study suggests that AI will not replace accountant but their profession will be changed in nature. They need to develop some Technological skills. It focuses that there is significant impact on accounting profession and adapting the change arises due to implementation of AI, this profession may glorify the competitive job market.

Key Words: Artificial Intelligence, Accounting, Auditing, Technology

Introduction

Artificial Intelligence has already begun to revolutionize various industries, and accounting is no exception. AI refers to the ability of machines to perform tasks that typically require human intelligence, such as learning, problem-solving, and pattern recognition. With the rapid development of big data and deep learning technologies, the tide of artificial intelligence (AI) is sweeping over the world. The era of AI has brought systematized and data-oriented upgrades as well as continuing developments in operational techniques across industries. Also, it exerts an unprecedented impact on the traditional accounting industry. In the accounting field, AI technologies—such as machine learning, natural language processing, and robotic process automation (RPA)—are being employed to streamline processes, reduce human error, and improve the overall quality of financial reporting.

The rise of AI has brought intelligence and automation to traditional accounting, which makes traditional accounting break the boundaries of traditional work and continuously develop into the field of intelligent accounting. As a result, more and more companies use intelligent software to perform basic accounting work and adopt robots to replace financial personnel, which compels accountants and auditors to improve their abilities in all aspects to deal with the sweeping AI era. More importantly, this makes the accounting industry upgrade unceasingly to keep pace with the age of AI. Nowadays, it becomes an inevitable trend for AI agents to carry out the basic operational tasks for human beings. However, they are not without flaws. On one hand, with the efficiency of the industry rising, entry-level or low-level accounting practitioners are very likely replaced by these AI tools. On the other hand, there is still some work that these AI tools cannot do for human beings, and they cannot completely replace humans in all aspects. Next, we will study the role of AI in the accounting industry, analyze the benefits



and issues that AI has brought to the accounting industry and its personnel, and give out our suggestions for the future development and transformation of the accounting industry and its personnel.

Literature Review

Chukwuani & Egayi (2020) examined the impact of artificial intelligence on accounting industry. They showed the level of advancement taking place in the accounting industry in automating the accounting process. Finally they outlined the accountants place in the modern automation and how the accountant of the 21st century can adapt to the wide spread automation in the industry.

Luan et.al.(2020) talked about the challenges and directions of AI technology and big data in education ,research, policy making and industry. Their argument is that in reaction to the innovation and dilemmas brought forth by the AI and big data revolution academia, policy makers and professionals from variety of discipline must engage in effectual collaboration to fully actualize the potential of the AI and the data advancement. Their collaborative approach is essential, but major problem is lack of vision of the part of the group and lack of knowledge and skill also.

Levina Layadi (2023) the aim of this research was to analyze the Impact of Artificial Intelligence on Accounting and the Accountant Profession. The conclusion of the study was that Artificial intelligence (AI) is the study of intelligent minds that can be used for calculations. Calculations performed by artificial intelligence aim to create a more controlled computer system, simplify the user's work and analyze problems. However, due to the lack of adequate information in accounting, therefore, accounting and the accounting profession must evolve and adapt to a changing environment, so that it provides benefits and is kept up-to-date and relevant, but also must be connected with the world.

Huiquan Jin1, Lei Jin et al .(2023) the purpose of this study was to study the role of Artificial Intelligence in the Accounting Industry with respect to china. In this paper, analysis was done to discuss the advantages and disadvantages AI brings to the accounting industry and its personnel, and provide suitable suggestions for them to seize opportunities and meet challenges in the era of AI.

Aparna Medda Santra (2024) in this study the opinion of various reviewers is analyzed and a comparison is made to get the impact of AI in accounting profession. In future business world vast data processing and its interpretation is required. In this study discussion have been made on requirement of AI in accounting profession through analyzing its merits and demerits. In conclusion the study suggests that AI will not replace accountant but their profession will be changed in nature. They need to develop some Technological skills. It focuses that there is significant impact on accounting profession and adapting the change arises due to implementation of AI, this profession may glorify the competitive job market.

Objective of the Study

The objective of the study is to discuss the impact of artificial intelligence on the accounting operations.

Research Question

The Research question raised on what impact does artificial intelligence has in the accounting function and overall business performance.

Methodology

The study is descriptive in nature and conducted through study of various literatures and published secondary data. Thus, the study purely adopts secondary data source through internet and academic database like literature reviews, empirical studies, website, books, journal, reports etc.



Results and Discussion

The first commercial application of AI technology in the accounting industry was on March 10th, 2016. As one of the Big Four accounting firms, Deloitte first announced the formal introduction of AI into the daily work of accounting. Then, the other big accounting firms made the same decision, and financial robots or AI agents have been introduced in succession. These companies make use of the characteristics of constantly repeating the same work in the accounting industry to fulfill the work of accounting, auditing, and taxation, which marks the gradual transformation of the accounting industry from traditional to modern.

Focus Areas of Applications of Artificial Intelligence in Accounting and Auditing

Based on study of existing literature the main areas of application of AI in the field of accounting and auditing are as follows:

- **Automated Bookkeeping:** AI-powered systems can automatically record financial transactions, categorize expenses, and reconcile bank statements. This reduces manual entry errors and frees up time for accountants to focus on more complex tasks.
- **Fraud Detection:** AI algorithms analyze patterns in financial data to detect anomalies that might indicate fraudulent activity. By using machine learning, AI can identify suspicious transactions or unusual behavior that human auditors might miss.
- **Financial Forecasting:** AI tools help predict future financial trends by analyzing historical data and external factors. This can assist in budgeting, forecasting, and strategic decision-making.
- **Tax Compliance and Planning:** AI can help identify tax-saving opportunities by analyzing financial data and suggesting deductions or credits. It can also ensure compliance with tax laws and regulations by tracking changes in tax codes.
- **Accounts Payable and Receivable:** AI can automate the process of managing invoices, payment approvals, and collections. For example, AI can predict when payments are likely to be overdue and help manage cash flow more effectively.
- **Financial Reporting:** AI can generate financial reports by automatically compiling data and presenting it in user-friendly formats. This helps accountants create timely and accurate reports for stakeholders.
- **Expense Management:** AI helps monitor and control business expenses by analyzing spending patterns and providing recommendations for cost reduction. It can also automate expense approvals and integrate with existing accounting systems.
- **Predictive Analytics:** By using machine learning, AI can predict future financial outcomes based on current data, helping businesses make proactive decisions regarding investments, capital allocation, or operational strategies.
- **Expert Systems (ES):** it is the subset of knowledge based system that include an expert's expertise in the system knowledge base. In financial accounting Expert Systems is applied in designing financial statement and Accounting Information system processing invoices and putting entries, assessing standards, developing worksheets etc. In auditing and inventory control system ES is also applicable.
- **Continuous Auditing:** continuous auditing is associated to paperless accounting information systems, significant technical hurdles, lack of standards and guidance, increased value of real time financial information and timely audit report. AI is used to enhance the audit process by reviewing large datasets and identifying errors, discrepancies, or areas that require further investigation. Machine learning can analyze transactions more efficiently than traditional manual methods.



- **Decision Support System (DSS):** it is a Computer Based system which is interactive, adaptable and versatile and helpful in decision making process. The use of DSS can be found in various unstructured accounting, auditing and Management tasks.
- **Deep Learning & Machine Learning:** here computer system imitates the human thinking and learning to perform a particular job. As per ibm.com Machine Learning is a branch of Artificial Intelligence and computer science which focuses on the use of data and algorithms to imitate the way that human learn, gradually improving its accuracy.
- **Neutral Network (NN):** It is a machine learning system that is applied in risk assessment which is a fundamental part of the auditing process.
- **Natural Language Processing (NLP):** It is a field of study that focuses on teaching artificial models to understand and process human speech. It is a virtual AI Technological tool that focuses on the replication of human natural language and communication methods. AI-powered NLP tools can help accountants interpret complex financial documents (e.g., contracts, invoices) and extract relevant data automatically.
- **Fuzzy Logic:** It is a technique of reasoning that resembles human thinking since its methodology mimics how human make decisions.
- **Robotic Process Automation (RPA):** It perform rule based and standardized tasks. Robots can be trained or programmed to do rule- based, repetitive, high volume operations. RPA differs from AI in that, it is process driven while AI is data-driven.
- **Emergence of Block Chain Technology:** Block Chain Technology allows for the secure and cost-effective transmission of any value (data, asset, cash and information) in real time. It will be very useful for accountant and auditor since it will provide useful data for corporate reporting, analyzing population data instead of sample, data for audit design etc.
- **Emergence of Big Data:** Big data is a double-edged sword that is characterized by four Vs.— large volume ,high velocity, wide variety, and uncertain veracity. It should be used tactically otherwise it will generate big problem. Apart from these 'Genetic Algorithm' and 'Hybrid System' are some of the technologies which are helpful for automation and advancement of accounting and auditing process.

Possible Benefits of AI Implementation

AI brings numerous benefits to the accounting field, improving both efficiency and accuracy.

Here are some of the key advantages:

- **Increased Efficiency:** AI can automate repetitive and time-consuming tasks, such as data entry, transaction categorization, and reconciliation. This allows accountants to focus on more strategic tasks, improving overall productivity.
- **Cost Savings:** By automating manual processes, businesses can reduce the need for additional staff and minimize errors that could result in costly corrections. This leads to significant savings in both time and money.
- **Improved Accuracy:** AI systems are less prone to human error and can process large volumes of data with precision. They can identify discrepancies, inconsistencies, or mistakes in real-time, ensuring that financial records are accurate and reliable.
- **Better Fraud Detection:** AI algorithms can analyze patterns in financial transactions and detect unusual behavior or anomalies that could indicate fraud. This enhances security and helps prevent financial losses from fraudulent activities.



- **Real-Time Reporting and Insights:** AI can quickly generate financial reports and offer real-time insights into a company's financial health. This allows for faster decision-making, better financial planning, and improved forecasting.
- **Enhanced Compliance:** AI can help accountants stay compliant with evolving tax laws and regulations by automatically tracking changes and ensuring that all financial activities are in line with the latest requirements.
- **Faster Decision-Making:** With AI-driven analytics, accountants and business leaders can access real-time insights and predictive forecasts. This accelerates decision-making processes and helps businesses make data-driven choices more effectively.
- **Scalability:** AI can handle increasing volumes of data with ease, allowing businesses to scale operations without a corresponding increase in workload. As companies grow, AI systems can process more data without the need for additional resources.
- **Personalized Financial Recommendations:** AI tools can analyze past data to provide tailored financial advice, identifying areas for cost reduction, investment opportunities, or revenue growth, helping businesses improve their financial performance.
- **Better Client Service:** In firms that provide accounting services, AI can enhance client interactions by offering faster response times, personalized advice, and more accurate reports, improving overall client satisfaction.
- **Continuous Learning and Improvement:** AI systems can learn from new data and improve their capabilities over time, becoming more effective in tasks such as forecasting, auditing, and tax planning as they gather more information.
- **Simplified Audit Processes:** AI streamlines audits by analyzing vast amounts of data quickly and efficiently, identifying potential issues or areas of concern more effectively than traditional methods.

In summary, AI in accounting leads to greater productivity, cost efficiency, accuracy, and better decision-making, while also enabling businesses to adapt more quickly to changing conditions and regulatory requirements.

Risk aspects of AI implementation

While the implementation of AI in accounting offers significant benefits, there are also several risks associated with its adoption. Here are some key risk aspects to consider:

- **Data Privacy and Security Concerns:** AI systems rely on large amounts of data, which may include sensitive financial information. If AI systems are not properly secured, they could become targets for cyber-attacks or data breaches, putting client and company data at risk.
- **Bias in Algorithms:** AI systems can inherit biases from the data they are trained on. If the training data is skewed or unrepresentative, the AI can make decisions that unfairly favor certain groups or lead to inaccurate conclusions.



- **Job Displacement:**The automation of accounting tasks might lead to job displacement for certain roles, particularly those that involve repetitive or manual tasks. Employees may need to adapt to new roles or face unemployment if their positions are entirely replaced by AI.
- **Over-reliance on AI:** Over-relying on AI could lead to the de-skilling of the accounting workforce and a lack of human judgment in critical decision-making. AI may not be able to handle complex or ambiguous situations the way an experienced accountant can.
- **Integration Challenges:**Integrating AI into existing accounting systems may be complex, costly, and time-consuming. Legacy systems might not be compatible with newer AI technologies, leading to implementation delays or disruptions in operations.
- **Regulatory and Compliance Risks:**The rapid development of AI could outpace regulations, leaving organizations uncertain about compliance with emerging laws and industry standards. Improper use of AI might violate financial regulations, especially concerning data handling and reporting.
- **Lack of Transparency and Accountability:**AI decision-making processes can be opaque, especially with complex machine learning models. This lack of transparency can make it difficult to understand how AI arrived at a particular conclusion, which is crucial in fields like accounting where accuracy and transparency are paramount.
- **High Initial Costs:**The initial costs of AI implementation—such as purchasing software, training staff, and maintaining the system—can be high. Small to mid-sized accounting firms, in particular, may find these costs prohibitive.
- **AI System Errors or Failure:**AI systems can malfunction or make incorrect decisions, especially if the data inputs are flawed, incomplete, or misinterpreted. In accounting, this could lead to serious errors in financial reporting or analysis.
- **Ethical Concerns:**AI might be used in ways that raise ethical concerns, such as making decisions that prioritize efficiency over fairness or transparency. The ethical use of AI in sensitive financial matters is critical to maintaining trust.
- **Vendor Dependency:**If an accounting firm relies on third-party AI vendors, they may become dependent on the vendor for software updates, maintenance, and support. This can create risks if the vendor goes out of business or the product no longer meets evolving needs.
- **Change Management and Employee Resistance:**Employees may resist the adoption of AI, fearing job loss or the challenge of adapting to new technologies. This resistance can slow down the implementation process and reduce the effectiveness of AI tools.

Here are some opinions of the reviewers:

- Implement strong data encryption, access controls, and regular security audits to ensure that sensitive data is protected.
- Regularly audit AI models for bias, ensure diverse data sets are used for training, and implement human oversight to spot and address biased outcomes.
- Invest in employee training and re-skilling programs to help the workforce transition to more strategic or advanced roles that complement AI systems.



- Ensure a balance between AI automation and human oversight. While AI can handle routine tasks, human judgment should still play a key role in strategic decisions and problem-solving.
- Plan for a phased implementation and ensure that AI tools are compatible with existing systems. Work with IT professionals and AI vendors to ensure smooth integration.
- Stay updated on regulatory changes and ensures that AI systems are designed with compliance in mind. Consult legal experts to navigate new and evolving regulations related to AI use in accounting.
- Choose AI tools that offer explainable AI (XAI) models, which provide insight into how decisions are made. Ensure that accountability for AI-generated results remains with human oversight.
- Consider gradual implementation to spread out costs, and evaluate the long-term return on investment (ROI) to ensure that the benefits outweigh the initial expenditure.
- Implement strong monitoring and testing protocols to regularly check the AI's performance. Always have a backup system or manual oversight to catch potential errors.
- Establish clear ethical guidelines for AI implementation and use. Involve ethical review boards or committees to evaluate the impact of AI decisions and ensure ethical standards are upheld. Ensure contracts with AI vendors include provisions for continued support, updates, and clear data ownership rights. Consider contingency plans in case of vendor issues.
- Foster a culture of change by clearly communicating the benefits of AI, involving employees in the implementation process, and offering training programs to help them adapt.

Conclusion

The integration of Artificial Intelligence (AI) into the accounting profession has brought about profound transformations, offering significant benefits in terms of efficiency, accuracy, cost reduction, and enhanced decision-making. AI automates repetitive tasks such as bookkeeping, transaction categorization, and reconciliation, which allows accountants to focus on more strategic, value-added activities. Additionally, AI's ability to analyze large volumes of data in real-time improves financial forecasting, fraud detection, and compliance, thereby boosting overall productivity and reducing human error.

However, the adoption of AI also comes with certain risks. Issues related to data privacy, algorithmic bias, over-reliance on automation, and potential job displacement need to be carefully managed. Furthermore, challenges such as the integration of AI with legacy systems, high implementation costs, and regulatory compliance concerns can pose significant hurdles for businesses and accounting firms.

Emergence of AI in accounting is an opportunity not a challenge for the accountant and accounting industry. Accountant should welcome AI Technology; they should improve their knowledge about it and should produce maximum output. To maximize the benefits while minimizing the risks, it is crucial for firms to adopt a balanced approach. This includes ensuring proper training, maintaining human oversight, establishing ethical guidelines, and keeping systems secure and compliant. Ultimately, AI has the potential to redefine the accounting profession, making it more agile and data-driven, but careful implementation and monitoring are key to navigating the complexities it introduces.

References

- Aparna Medda Santra(January 2024). Artificial Intelligence: It's Impact on Accounting- A Review Work NSOU-OPEN JOURNAL ISSN: 2581-5415 Vol.7 No.1 (January 2024) A multidisciplinary Online Journal of NetajiSubhas Open University, INDIA



- Hashid, A., & Almagtari, F. A. (2024). The Impact of Artificial Intelligence and Industry 4.0 Transforming Accounting and Auditing Practices. *Journal of Open Innovation, Technology, Market*, 10(1).
- Huiquan Jin , , Lei Jin, Chongxiao Qu, Wei Xiao, Changjun Fan(2022) N. Radojević et al. (Eds.): ICAID 2022, AHIS 7, pp. 248–257, 2023. https://doi.org/10.2991/978-94-6463-010-7_26
- Levina Layadi ,Atma Jaya Makassar University, Makassar, Indonesia
- Odonkor, Beryl, Simon Kaggwa, Prisca Ugomma Uwaoma, Azeez Olanipekun Hassan, and Oluwatoyin Ajoke Farayola. 2024. The impact of AI on accounting practices: A review: Exploring how artificial intelligence is transforming traditional accounting methods and financial reporting. *World Journal of Advanced Research and Reviews* 21: 172–88



ASSESSING THE EFFECTIVENESS OF RISK MANAGEMENT PRACTICES IN SMALL AND HOME-BASED ENTERPRISES: CHALLENGES AND SOLUTIONS

By

Machhi Pritikshaben Bharatbhai

Research Scholars

&

Dr. Rohit Barot

Assistant Professor

Department of Commerce, Piyuni Goswami College of Commerce, Monark University, Ahmedabad

Abstract

Risk management is essential for the survival and sustainability of small and home-based enterprises, which often operate with limited financial resources and face various uncertainties, including market fluctuations, operational inefficiencies, and regulatory challenges. These businesses contribute significantly to local economies by generating employment and fostering innovation. However, due to their small scale, they are highly vulnerable to financial instability, supply chain disruptions, technological gaps, and compliance issues.

This study evaluates the effectiveness of risk management practices in small and home-based enterprises, identifying key risks and analyzing the strategies used to mitigate them. The research incorporates both primary and secondary data, including surveys conducted with business owners in the Valsad district and an extensive review of existing literature on financial planning, technological adoption, and government support initiatives.

The findings indicate that while many small enterprises recognize the importance of risk management, a significant number still lack structured frameworks to address financial, market, and operational risks. Businesses that adopt proactive strategies, such as digital financial management tools, diversification of supply chains, and government-backed financial assistance, tend to perform better in managing risks.

This research provides valuable insights for business owners, policymakers, and financial institutions. It highlights the need for enhanced financial literacy, improved accessibility to credit facilities, and increased awareness of available government support programs. The study concludes that structured risk management practices, combined with technological integration and policy interventions, can significantly enhance the resilience and long-term sustainability of small and home-based enterprises.

Keywords: Risk Management, Small Enterprises, Home-Based Businesses, Financial Risks, Business Sustainability

Introduction

Small and home-based enterprises contribute significantly to economic development, particularly in emerging economies. These businesses create employment opportunities and drive innovation. However, their small scale makes them vulnerable to various risks, including financial crises, supply chain disruptions, and regulatory changes. Unlike large corporations, small businesses often lack structured risk management frameworks. Therefore, this study aims to evaluate the effectiveness of risk management practices in small and home-based enterprises, identify challenges, and propose solutions to improve resilience.



Review of Literature

Several studies have explored risk management in small enterprises:

- Financial Risk Management

Brigham and Ehrhardt (2019) emphasized that financial planning and liquidity management are essential for small businesses. Many enterprises fail due to poor cash flow management, making financial risk a key challenge.

Kaplan and Mikes (2012) categorized financial risks into liquidity, credit, and market risks. They suggested that diversification and financial literacy programs could help small businesses mitigate these risks.

- Market Risks and Uncertainty

Aven (2016) highlighted that market fluctuations, changing consumer preferences, and competition pose significant threats to small enterprises. Businesses with proactive market risk strategies, such as flexible pricing and digital marketing, tend to be more sustainable.

A study by the World Bank (2022) found that small businesses that relied solely on traditional sales channels faced higher risks compared to those that adopted e-commerce platforms.

- Role of Technology in Risk Management

Gujarati and Porter (2020) discussed the impact of digital tools on business risk management. Their study found that cloud-based accounting, automated financial tracking, and online payment systems improved risk management efficiency.

The Ministry of Micro, Small, and Medium Enterprises (MSME) (2023) reported that businesses using digital payment solutions and e-commerce platforms were more resilient to financial instability and economic downturns.

- Government Support and Policies

Government intervention plays a critical role in mitigating risks for small enterprises. The MSME Annual Report (2023) highlighted that microfinance loans, subsidy programs, and insurance schemes provided financial security to small businesses. However, many business owners lacked awareness of these benefits, limiting their effectiveness.

The World Bank (2022) recommended that policy interventions should focus on improving financial literacy and accessibility to credit facilities for small enterprises.

Summary of Literature Review

Existing research indicates that risk management is crucial for business sustainability. Challenges such as financial instability, market fluctuations, and lack of technological adoption can be mitigated through structured financial planning, government support, and the integration of digital tools.

Objectives

The primary objectives of this research are:

1. To analyze the effectiveness of risk management practices in small and home-based enterprises.
2. To identify key financial, market, and operational risks faced by these businesses.
3. To explore risk mitigation strategies, including financial planning and technological adoption.
4. To assess the role of government policies in supporting risk management in small enterprises.



Methodology

This study employs a mixed-method approach, combining both qualitative and quantitative research.

Data Collection Methods:

- **Primary Data:** Surveys and interviews were conducted with 50 small and home-based business owners in the Valsad district. The questionnaire focused on risk management strategies, financial challenges, and technological adoption.
- **Secondary Data:** Government reports, journal articles, and industry research studies were analyzed to provide context and comparative insights.

Data Analysis:

Responses from surveys were analyzed using descriptive statistics, while qualitative insights from interviews were categorized into key themes.

Findings

1. Financial Challenges

- 65% of respondents reported difficulty in securing bank loans due to a lack of collateral.
- 40% faced inconsistent cash flow, making it hard to manage expenses.

2. Market Risks and Customer Demand

- 58% of business owners struggled with fluctuating demand due to market uncertainties.
- 30% reported increased competition from larger firms with better resources.

3. Technological Adoption

- 45% of respondents had not integrated digital payment solutions, increasing their financial risk.
- Businesses that used online sales platforms saw a 20% increase in revenue compared to those relying solely on physical sales.

4. Awareness of Government Support

- Only 35% of business owners were aware of government financial assistance programs.
- Those who utilized microfinance loans reported better financial stability.

Conclusion

This research highlights that small and home-based enterprises face significant financial and market risks due to limited resources and lack of structured risk management strategies. However, adopting financial planning, leveraging technology, and increasing awareness of government policies can enhance business resilience.

Implications

- Policymakers should focus on improving financial literacy programs and increasing the accessibility of microfinance loans.



- Small businesses should invest in digital tools for risk management, such as cloud-based accounting and online sales platforms.
- Government agencies should implement awareness campaigns to educate entrepreneurs about available financial support programs.

Recommendations

1. **Financial Planning:** Small businesses should implement budgeting and cash flow management strategies to reduce financial instability.
2. **Technology Integration:** Business owners should adopt digital payment solutions and e-commerce platforms to reduce market risks.
3. **Government Support Awareness:** More efforts are needed to educate small business owners about financial aid programs.
4. **Training and Development:** Workshops on risk management strategies should be provided to entrepreneurs to improve their ability to handle financial and operational challenges.

Limitations

- The study focuses only on businesses in the Valsad district, which may limit the generalizability of findings.
- Data collection was limited to 50 respondents, and results may vary across different regions and industries.

References

- Aven, T. (2016). Risk assessment and risk management: Review of recent advances and applications. *Reliability Engineering & System Safety*, 157, 1-14. <https://doi.org/10.xxxx/yyyy>
- Brigham, E. F., & Ehrhardt, M. C. (2019). *Financial management: Theory & practice* (16th ed.). Cengage Learning.
- Gujarati, D. N., & Porter, D. C. (2020). *Basic econometrics* (5th ed.). McGraw Hill.
- Ministry of Micro, Small, and Medium Enterprises (MSME), Government of India. (2023). Annual report on MSME sector. Retrieved from <https://www.msme.gov.in/>
- Kaplan, R. S., & Mikes, A. (2012). Managing risks: A new framework. *Harvard Business Review*, 90(6), 48-60.
- World Bank. (2022). The role of small enterprises in economic development. Retrieved from <https://www.worldbank.org/>



AN EVALUATION OF THE FINANCIAL EFFICIENCY OF SELECTED BANKS IN INDIA WITH REFERENCE TO CAMEL MODEL

By

Mr. Jignesh B. Shah

Teaching Assistant

Department of Accounting & Financial Management

Faculty of Commerce, The M.S.University of Baroda, Vadodara.

Abstract

Banking sector is the backbone of any country's economic development. The financial efficiency of banks plays very crucial role in ensuring economic stability and growth of country. The banking sector is a significant contributor to India's service sector, which forms a crucial part of the country's GDP includes shares in the service sector and supports economic growth, employment and financial inclusion through Jan Dhan Yojana and others, besides supporting other service industries including Digital Transformation. This present study examines the financial efficiency of selected banks in India using the CAMEL Model. During the study, six public sector banks namely State Bank of India, Punjab National Bank, Bank of Baroda, Union Bank of India, Canara Bank and Indian Banks and six private sector banks namely HDFC, ICICI, Kotak Mahindra, Axis, IndusInd and IDBI bank have been selected as a sample. Secondary data have been collected from annual reports of sample banks for 10 years i.e. 2014-15 to 2023-24, Findings of study have relevant implications for stakeholders.

Keywords: Financial Efficiency, CAMEL Model, Capital Adequacy, Asset Quality, Management Efficiency, Earning Quality

Introduction

Banking is the important sector of economy. It is one of the key indicators to assess the level of development of any country. Performance of the banking sector is an effective measure and indicator to check the performance of any economy to a large extent. The banking sector reforms were started in India as a follow up measure of financial sector reforms and economic liberalization in the country. The banking sector being the life line of the economy has been given due weightage in the financial Accounting Standards were the basic supporting parameters behind the initiation of reforms in Indian banking industry.

Banking performance is assessed by implementing a regulatory banking supervision framework. One supervisory regulation is the CAMEL rating system i.e. CAMEL Model. CAMEL model is very effective tool. It is used to determine the financial strength and weakness of banks. It also provide appropriate measures to improve the strength of a bank. In 1996 RBI adopted CAMEL Model approach. CAMEL Model (Capital Adequacy, Asset Quality, Management Efficiency, Earnings, Liquidity) are used for examining the financial efficiency of the Indian Commercial Banks and Foreign Banks in India.

As per Section 5(b) of the Banking Regulation Act, 1949, "banking" means the accepting, for lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdraw-able by cheque, draft, order or otherwise. A company which does banking business in India is known as a banking company. (www.rbi.org.in)

There are many types of banks. For example, 1. Scheduled Bank: Scheduled banks are those banks which have been included in the Second Schedule as per the Reserve Bank Act 1934. The RBI has included those banks in the Second Schedule that meet the prescribe rules of Section 42(6)(a) of the Act.



Schedule Banks can be divided into two categories: (a) Commercial Banks and (b) Cooperative Banks. Commercial Banks includes Public Sector Banks, Private Sector Banks, Foreign Banks and Regional Rural Banks. Co-operative Banks includes State Co-Operative, District Co-Operative and Other Co-Operative. Public sector banks are those banks where the majority of the stake is held by the government. Private sector banks are those banks where the majority of the equity is held by private shareholder, the government does not have it.

Non-schedule bank: Non-scheduled banks are those banks which are not included in the second schedule to the RBI Act 1934. Those whose capital is less than 5,00,000 rupees are non-scheduled banks.

Review of Related Literature

Gupta (2016) studied "A Comparative Study on the Performance of Public and Private Sector Banks". They selected 3 Public Sector Banks (Bank of India, Union Bank of India and Punjab & Sind Bank) and 3 Private Sector Banks (ICICI Bank, Axis Bank and IndusInd Bank) based on total assets. The study has covered a period of 10 years from 2006 to 2015. They found that in terms of credit-deposit ratio, public sector banks were better performers as compared to private bank. While in terms of investment deposit ratio, return on assets ratio and return on equity ratio, private sector banks were better performers as compared to public sector banks. In term of savings account deposit per branch, public sector banks had a strong hold in rural and semi-urban areas, on a contrary private sector banks were found to be the leaders in metropolitan areas.

Meena (2016) studied "Performance of different public sector and private sector banks by using CAMEL model". Author investigated the factors that affect the financial performance of the selected public sector and private sector banks. He found that the management of NPAs is the weakest area of private sector and public sector banks.

Srinivasan and Saminathan (2016) apply CAMEL model to rank the public sector, private sector and foreign banks on the basis of financial performance from 2012 to 2014. They also found that significant difference lies between the mean values of Camel ratios of public sector, private sector and foreign banks during the period of study.

Purohit and Bothra (2018) "Compare the Performance of SBI and ICICI Bank using CAMEL parameters". They conclude that ICICI bank needs to improve its position with regard to capital adequacy and asset quality while SBI need to improve its position with regard to management efficiency, earning quality and liquidity.

Kiran (2018) studied "A CAMEL Model Analysis of Selected Public and Private Sector Banks in India". Author selected seven Public Sector Banks (State Bank of India, Bank of Baroda, Bank of India, PNB Bank, Union Bank of India, Canara Bank and IDBI Bank) and four Private Sector Banks (ICICI Bank, HDFC Bank, AXIS Bank and Indusind Bank) as sample and used secondary data for the last 04 years (2013-14 to 2016-17). Author conclude that private sector banks outperform public sector banks and first four ranks go to the credit of all the selected private sector banks. The private sector banks have to improve performance on liquidity aspect and public sector banks have to focus on capital adequacy, asset quality, management efficiency and earning quality.

Beevi (2019) studied "Financial Performance of Public Sector and Private Sector banks using CAMEL Model for the period 2010 to 2012". During the research, the author found that the public sector banks performed better in terms of capital adequacy, management efficiency, and liquidity as compared to private sector banks. The NPAs of public sector banks were increasing. The asset quality management of private sector banks was better due to the precautionary measures they followed while lending loans and advances.



Koley (2019) studied “A Study on Comparative Financial Performance of SBI and HDFC from 2013-14 to 2017-18” with the help of the CAMEL model, mean, and t-test. The study indicated that HDFC performed better in terms of asset quality, management efficiency, earning ability and liquidity. The capital adequacy ratio of both banks was satisfactory as it outperformed the Basel norms. The debt-equity ratio of SBI was high which highlighted that it was exposed to more financial risk and HDFC had taken a safer side by providing a high margin of safety to its depositors.

Madhavi (2023) studied “A Comparative Study on Financial Performance of Selected Public Sector and Private Sector Banks in India”. The SBI and ICICI Banks were selected as sample. Author concluded that the financial performance analysis of public and private sector banks showed that ICICI bank has more ability to meet its obligations related to risk as compared to SBI. In this study, the author found that ICICI Bank is leading bank as compared to SBI and customer has now more trust on the private sector banks as compared to public sector banks.

Shah (2024) studied “A Comparative Study on Financial Performance and Growth of Selected Public Sector and Private Sector Banks in India”. They selected data of 13 financial years (2005-06 to 2017-18) of five Public Sector Banks (State Bank of India (SBI), Dena Bank (DB), Bank of Baroda (BOB), Andhra (AB) and Punjab National Bank (PNB)) and five Private Sector Banks (ICICI Bank, Axis Bank, HDFC Bank, YES Bank and DCB Bank). They found that public sector banks have a higher proportion of deposits and advances than private sector banks, whereas private banks have a higher share of borrowings and investments as compared to public sector banks. Private sector banks have a superior overall performance than public sector banks in terms of capital adequacy ratio, assets quality, management efficiency, earning quality and liquidity.

Scope and Need of the Study

The present study is undertaken to highlight the comparative analysis on financial performance of selected banks in India through CAMEL Model. Through the study we would come to know the financial efficiency of the selected banks operating in India. Apart from this, due to the expected increase in competition in the banking industry, the comparative analysis of the financial efficiency of select banks will gain significance in the coming times. Therefore, there is a need to know the best performing banking sector in India.

Objectives of the Study

1. To examine the financial performance of selected banks in India using different parameters of the CAMEL Model.
2. To assess the overall relative financial position of selected banks in India.
3. To compare the financial efficiency of selected banks in India based on different parameters of the CAMEL Model.
4. To provide recommendations for improving the performance of banks in India.

Research Methodology

The study is based on quantitative research methodology taking into its ambit the secondary data as per availability in annual reports of sample banks.

- Population of Study: The population of the study is 12 Public Sector Banks and 21 Private Sector Banks in India.
- Sample Size: Six public sector banks namely State Bank of India (SBI), Punjab National Bank (PNB), Bank of Baroda (BOB), Union Bank of India (UBI), Canara Bank (CB) and Indian Bank



(IB) and six private sector banks namely HDFC Bank, ICICI Bank, Kotak Mahindra Bank (KM), Axis Bank, IndusInd Bank and IDBI Bank have been taken as sample. The sample have been selected on the basis of market capitalization as on 31.03.2024 (<https://www.nseindia.com>).

- Period of the study: The study covers a period of 10 Years i.e. from 2014-15 to 2023-24.
- Sources of Data Collected: The present study is based on secondary data. The relevant data has been collected from published data of selected banks annual reports and money control website (www.moneycontrol.com).
- Analytical Tools for the study:

To examine the financial efficiency of the selected banks in India, internationally accepted CAMEL rating parameters have been applied. CAMEL is an acronym for five parameters (capital adequacy, assets quality, management soundness, earnings and liquidity). CAMEL rating is a subjective model which assesses financial strength of a bank, whereas CAMEL ranking indicates the banks comparative position with reference to other banks.

Some of the financial ratios have been used for analysis of financial efficiency of selected banks in India. Statistical tool i.e. mean are calculated using MS-Excel.

Data Analysis and Interpretation

Financial Efficiency

Financial efficiency of selected banks in India on different parameters of CAMEL Model is as follows.

Capital Adequacy

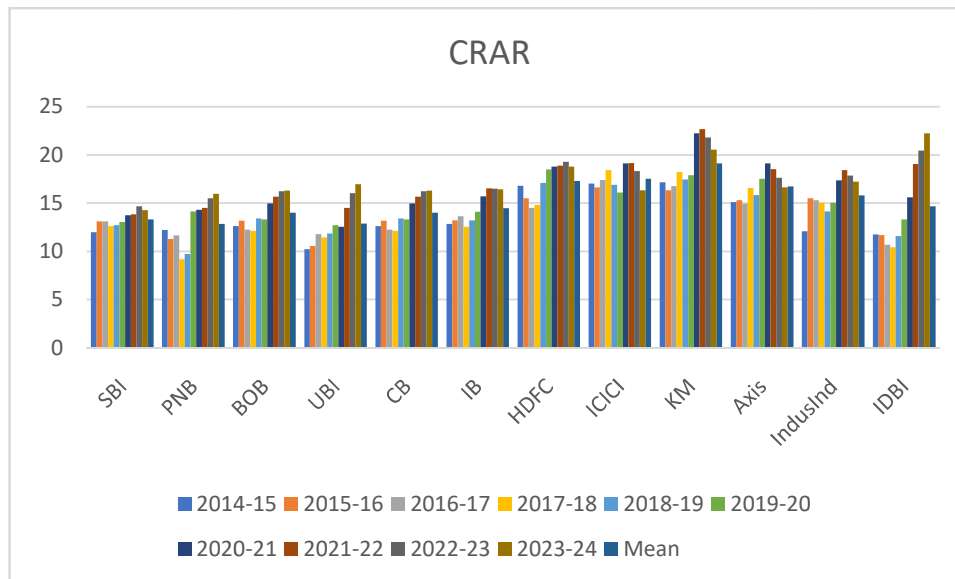
It describes whether the bank has sufficient capital to meet future unexpected losses. It also provides indication of financial position of the banks and also provide additional capital requirement.

Table 1: Capital to Risk Weighted Assets Ratio (CRAR %)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	12	13.12	13.11	12.6	12.72	13.06	13.74	13.83	14.68	14.28	13.31	9
PNB	12.21	11.28	11.66	9.2	9.73	14.14	14.32	14.5	15.5	15.97	12.85	11
BOB	12.6	13.17	12.24	12.13	13.42	13.3	14.99	15.68	16.24	16.31	14.01	8
UBI	10.22	10.56	11.79	11.46	11.86	12.71	12.56	14.52	16.04	16.97	12.87	10
CB	12.6	13.17	12.24	12.13	13.42	13.3	14.99	15.68	16.24	16.31	14.01	8
IB	12.86	13.2	13.64	12.55	13.21	14.12	15.71	16.53	16.49	16.44	14.48	7
HDFC	16.8	15.5	14.5	14.8	17.1	18.5	18.8	18.9	19.3	18.8	17.30	3
ICICI	17.02	16.64	17.39	18.42	16.89	16.11	19.12	19.16	18.34	16.33	17.54	2
KM	17.17	16.34	16.77	18.22	17.45	17.89	22.26	22.69	21.8	20.55	19.11	1
Axis	15.09	15.29	14.95	16.57	15.84	17.53	19.12	18.54	17.64	16.63	16.72	4
IndusInd	12.09	15.5	15.31	15.03	14.16	15.04	17.38	18.42	17.86	17.23	15.80	5
IDBI	11.76	11.67	10.7	10.41	11.58	13.31	15.59	19.06	20.44	22.26	14.68	6

Note: CRAR and Capital Adequacy Ratios are interchangeably used.

(Source: Annual Report of Selected Banks, moneycontrol.com)



Interpretation

On the basis of last ten years, Kotak Mahindra Bank ranks on the top position with highest CRAR (19.11%) followed by ICICI, HDFC, Axis, IndusInd and IDBI in private sector banks, while Indian Bank ranks on the top position with highest CRAR (14.48%) followed by Canara, BOB, SBI, UBI and PNB in public sector banks. So, private sector banks have more CRAR as compared to public sector banks.

Asset Quality

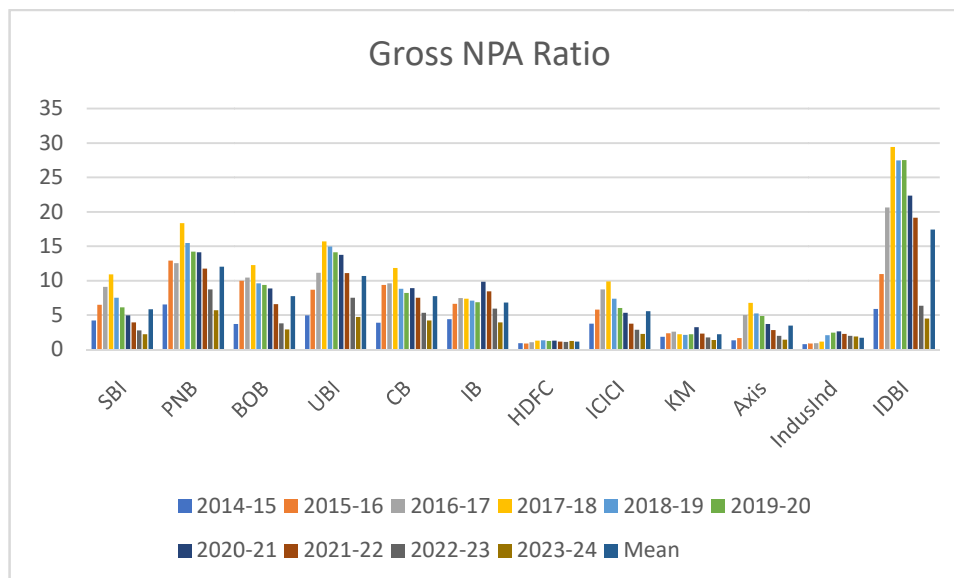
Asset quality assess the soundness of banks or financial institutions against loss of value in the assets. The level and severity of non-performing assets, adequacy of provision etc. impact the asset quality.

Table 2:Gross NPA Ratio (%)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	4.25	6.5	9.11	10.91	7.53	6.15	4.98	3.97	2.78	2.24	5.84	6
PNB	6.55	12.9	12.53	18.38	15.5	14.21	14.12	11.78	8.74	5.73	12.04	11
BOB	3.71	9.99	10.46	12.26	9.61	9.4	8.87	6.61	3.79	2.92	7.76	8
UBI	4.96	8.7	11.17	15.73	14.98	14.15	13.74	11.11	7.53	4.76	10.68	10
CB	3.89	9.4	9.63	11.84	8.83	8.21	8.93	7.51	5.35	4.23	7.78	9
IB	4.4	6.66	7.47	7.37	7.11	6.87	9.85	8.47	5.95	3.95	6.81	7
HDFC	0.92	0.89	1.05	1.3	1.36	1.26	1.32	1.17	1.12	1.24	1.16	1
ICICI	3.78	5.82	8.74	9.9	7.38	6.04	5.33	3.76	2.87	2.26	5.59	5
KM	1.85	2.36	2.59	2.22	2.14	2.25	3.25	2.34	1.78	1.39	2.22	3
Axis	1.34	1.67	5.04	6.77	5.26	4.86	3.7	2.82	2.02	1.43	3.49	4
IndusInd	0.81	0.87	0.93	1.17	2.1	2.45	2.67	2.27	1.98	1.92	1.72	2
IDBI	5.88	10.98	20.62	29.44	27.47	27.53	22.37	19.14	6.38	4.53	17.43	12



(Source: Annual Report of Selected Banks, moneycontrol.com)



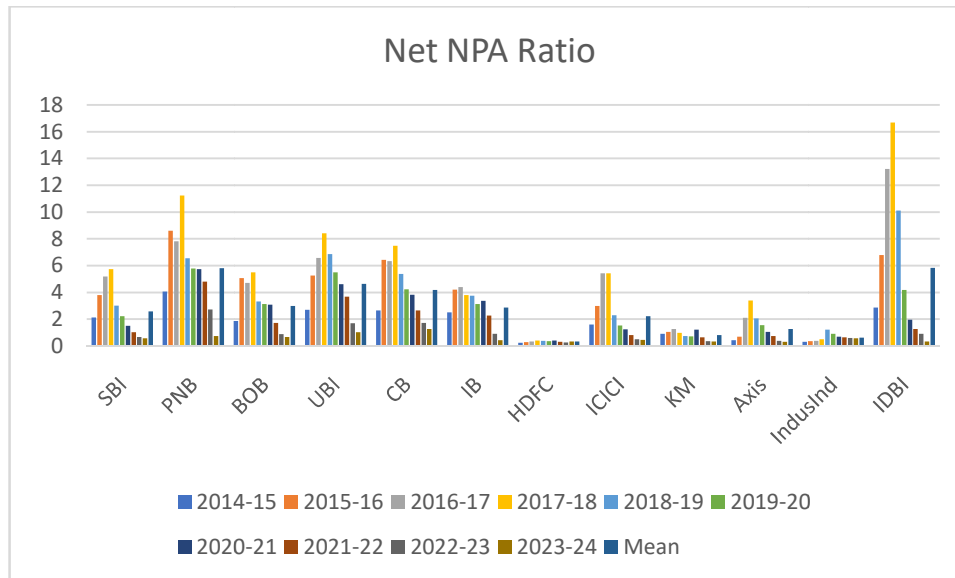
Interpretation

On the basis of last ten years, HDFC Bank ranks on the top position with lowest Groos NPA (1.16) followed by IndusInd, KM, Axis, ICICland IDBI in private sector banks, while SBI Bank ranks on the top position with lowest Groos NPA (5.84) followed by IB, BOB, CB, UBI and PNB in public sector banks. So, private sector banks have less Gross NPA as compared to public sector banks.

Table 3:Net NPA Ratio (%)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	2.12	3.81	5.19	5.73	3.01	2.23	1.5	1.02	0.67	0.57	2.59	6
PNB	4.06	8.61	7.81	11.24	6.56	5.78	5.73	4.8	2.72	0.73	5.80	12
BOB	1.87	5.06	4.72	5.49	3.33	3.13	3.09	1.72	0.89	0.68	3.00	8
UBI	2.71	5.25	6.57	8.42	6.85	5.49	4.62	3.68	1.7	1.03	4.63	10
CB	2.65	6.42	6.33	7.48	5.37	4.22	3.82	2.65	1.73	1.27	4.19	9
IB	2.5	4.2	4.39	3.81	3.75	3.13	3.37	2.27	0.9	0.43	2.88	7
HDFC	0.25	0.28	0.33	0.4	0.39	0.36	0.4	0.32	0.27	0.33	0.33	1
ICICI	1.61	2.98	5.43	5.43	2.29	1.54	1.24	0.81	0.51	0.45	2.23	5
KM	0.92	1.06	1.26	0.98	0.75	0.71	1.21	0.64	0.37	0.34	0.82	3
Axis	0.44	0.7	2.11	3.4	2.06	1.56	1.05	0.73	0.39	0.31	1.28	4
IndusInd	0.31	0.36	0.39	0.51	1.21	0.91	0.69	0.64	0.59	0.57	0.62	2
IDBI	2.88	6.78	13.21	16.69	10.11	4.19	1.97	1.27	0.92	0.34	5.84	11

(Source: Annual Report of Selected Banks, moneycontrol.com)



Interpretation

On the basis of last ten years, HDFC Bank ranks on the top position with lowest Net NPA (0.33) followed by IndusInd, KM, Axis, ICICI and IDBI in private sector banks, while SBI Bank ranks on the top position with lowest Net NPA (2.59) followed by IB, BOB, CB, UBI and PNB in public sector banks. So, private sector banks have less Net NPA as compared to public sector banks.

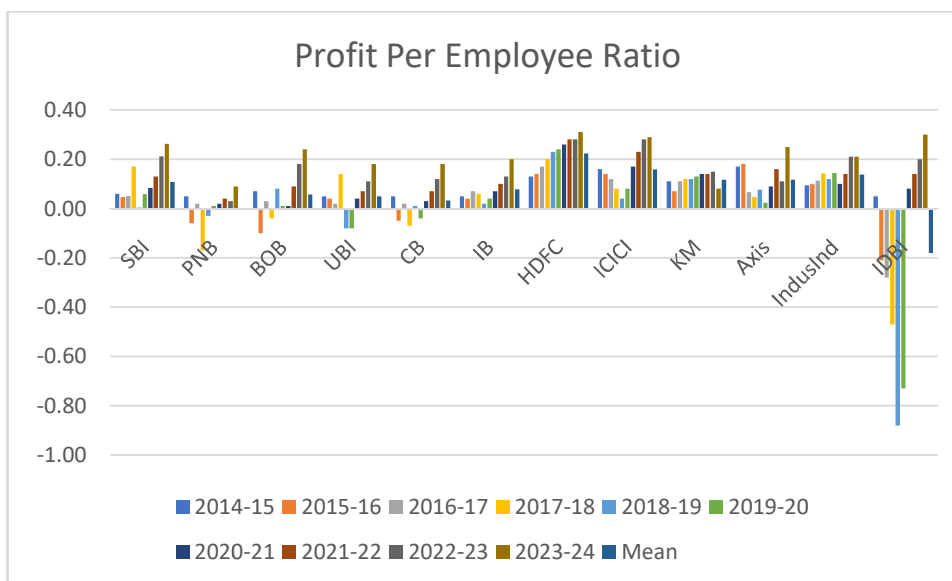
Management Efficiency

Management efficiency enables the evaluation of better and good management quality and also helpful to banks to achieve sustainable growth.

Table 4: Profit Per Employee Ratio (₹ Crore)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	0.06	0.05	0.05	0.17	0.00	0.06	0.08	0.13	0.21	0.26	0.11	5
PNB	0.05	-0.06	0.02	-0.17	-0.03	0.01	0.02	0.04	0.03	0.09	0.00	10
BOB	0.07	-0.1	0.03	-0.04	0.08	0.01	0.01	0.09	0.18	0.24	0.06	7
UBI	0.05	0.04	0.02	0.14	-0.08	-0.08	0.04	0.07	0.11	0.18	0.05	8
CB	0.05	-0.05	0.02	-0.07	0.01	-0.04	0.03	0.07	0.12	0.18	0.03	9
IB	0.0495	0.04	0.07	0.06	0.02	0.04	0.07	0.1	0.13	0.2	0.08	6
HDFC	0.13	0.14	0.17	0.2	0.23	0.24	0.26	0.28	0.28	0.31	0.22	1
ICICI	0.16	0.14	0.12	0.08	0.04	0.08	0.17	0.23	0.28	0.29	0.16	2
KM	0.11	0.07	0.11	0.12	0.12	0.13	0.14	0.14	0.15	0.08	0.12	4
Axis	0.17	0.18	0.0668	0.047	0.0761	0.024	0.09	0.16	0.11	0.25	0.12	4
IndusInd	0.0938	0.0992	0.1133	0.1426	0.119	0.144	0.1	0.14	0.21	0.21	0.14	3
IDBI	0.05	-0.21	-0.28	-0.47	-0.88	-0.73	0.08	0.14	0.2	0.3	-0.18	11

(Source: Annual Report of Selected Banks, moneycontrol.com)



Interpretation

On the basis of last ten years, HDFC Bank secures the highest Profit Per Employee ratio (0.22) followed by ICICI, IndusInd, KM, Axis and IDBI in private sector banks, while SBI Bank secures the highest Profit Per Employee ratio (0.11) followed by IB, BOB, UBI, CB and PNB in public sector banks. So, private sector banks have more profit per employee as compared to public sector banks.

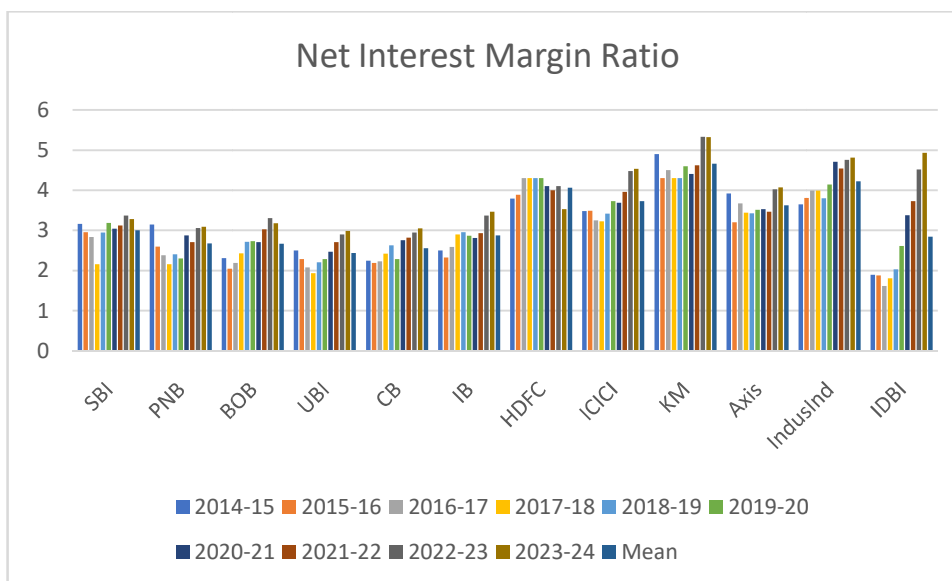
Earning Quality

The growth of future earnings and constant increase in income indicates the quality of earnings.

Table 5: Net Interest Margin Ratio (%)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	3.16	2.96	2.84	2.16	2.95	3.19	3.04	3.12	3.37	3.28	3.01	6
PNB	3.15	2.6	2.38	2.16	2.41	2.3	2.88	2.71	3.06	3.09	2.67	9
BOB	2.31	2.05	2.19	2.43	2.72	2.73	2.71	3.03	3.31	3.18	2.67	9
UBI	2.5	2.29	2.08	1.94	2.21	2.29	2.47	2.71	2.9	2.99	2.44	11
CB	2.25	2.19	2.23	2.42	2.63	2.29	2.76	2.82	2.95	3.05	2.56	10
IB	2.5	2.33	2.59	2.9	2.96	2.87	2.81	2.93	3.37	3.47	2.87	7
HDFC	3.79	3.89	4.3	4.3	4.3	4.3	4.1	4	4.1	3.53	4.06	3
ICICI	3.48	3.49	3.25	3.23	3.42	3.73	3.69	3.96	4.48	4.53	3.73	5
KM	4.9	4.3	4.5	4.3	4.3	4.6	4.41	4.62	5.33	5.32	4.66	1
Axis	3.92	3.2	3.67	3.44	3.43	3.51	3.53	3.47	4.02	4.07	3.63	4
IndusInd	3.65	3.81	3.99	3.99	3.8	4.14	4.71	4.54	4.76	4.81	4.22	2
IDBI	1.9	1.88	1.62	1.81	2.03	2.61	3.38	3.73	4.52	4.93	2.84	8

(Source: Annual Report of Selected Banks, moneycontrol.com)



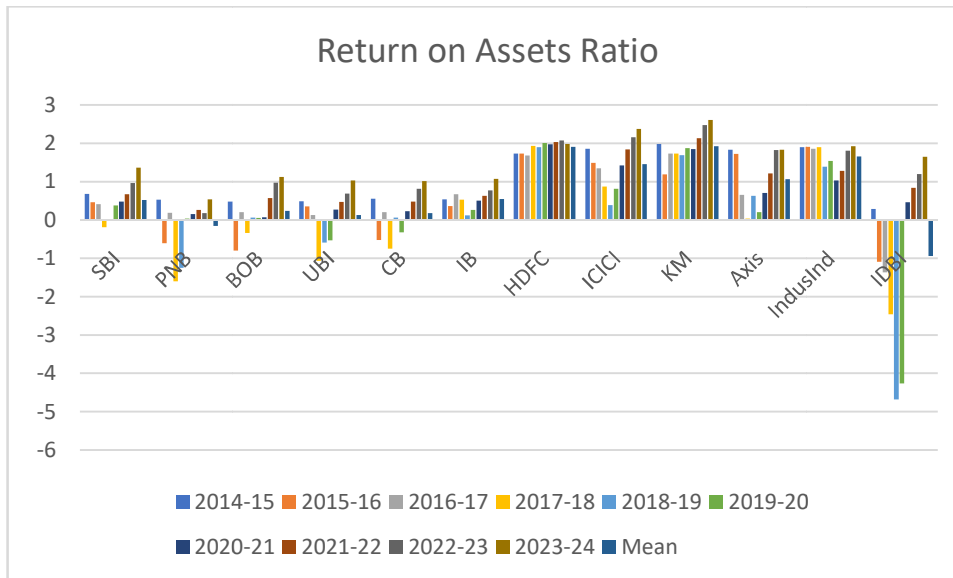
Interpretation

On the basis of last ten years, Net Interest Margin of KM Bank is highest i.e. 4.66 followed by IndusInd, HDFC, Axis, ICICI and IDBI in private sector banks, while SBI Bank is highest i.e. 3.01 followed by IB, PNB, BOB, CB and UBI in public sector banks. So, private sector banks have high Net Interest Margin as compared to public sector banks.

Table 6: Return on Assets Ratio (%)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	0.68	0.46	0.41	-0.19	0.02	0.38	0.48	0.67	0.96	1.36	0.52	7
PNB	0.53	-0.61	0.19	-1.6	-1.25	0.04	0.15	0.26	0.18	0.54	-0.16	11
BOB	0.48	-0.8	0.2	-0.34	0.06	0.05	0.07	0.57	0.97	1.12	0.24	8
UBI	0.49	0.35	0.13	-1.07	-0.59	-0.53	0.27	0.47	0.69	1.03	0.12	10
CB	0.55	-0.52	0.2	-0.75	0.06	-0.32	0.23	0.48	0.81	1.01	0.18	9
IB	0.54	0.36	0.67	0.53	0.12	0.26	0.5	0.63	0.77	1.07	0.55	6
HDFC	1.73	1.73	1.68	1.93	1.9	2.01	1.97	2.03	2.07	1.98	1.90	2
ICICI	1.86	1.49	1.35	0.87	0.39	0.81	1.42	1.84	2.16	2.37	1.46	3
KM	1.98	1.19	1.73	1.73	1.69	1.87	1.85	2.13	2.47	2.61	1.93	1
Axis	1.83	1.72	0.65	0.04	0.63	0.2	0.7	1.21	1.82	1.83	1.06	5
IndusInd	1.9	1.91	1.86	1.9	1.39	1.54	1.03	1.28	1.81	1.92	1.65	4
IDBI	0.29	-1.09	-1.37	-2.46	-4.68	-4.26	0.46	0.84	1.2	1.65	-0.94	12

Note: Return On Assets and Return on Average Assets are interchangeably used.
(Source: Annual Report of Selected Banks, moneycontrol.com)



Interpretation

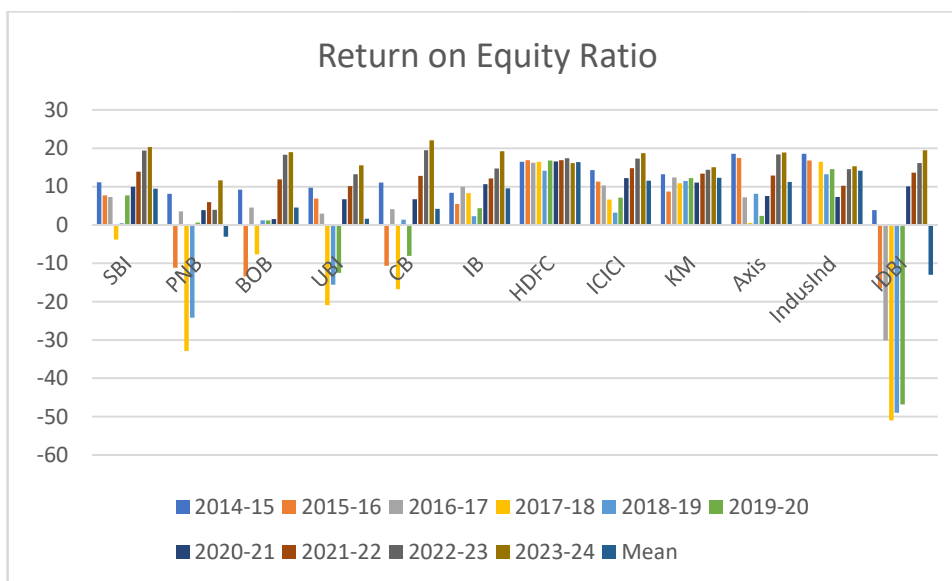
On the basis of last ten years, KM Bank is ranked on the top position with highest ROA ratio of 1.93 followed by HDFC, ICICI, IndusInd, Axis and IDBI in private sector banks, while IB is ranked on the top position with highest RAO ratio of 0.55 followed by SBI, BOB, CB, UBI and PNB in public sector banks. So, private sector banks have high ROA as compared to public sector banks.

Table 7: Return on Equity Ratio (%)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	11.17	7.74	7.25	-3.78	0.48	7.74	9.94	13.92	19.43	20.32	9.42	7
PNB	8.12	-11.2	3.52	-32.85	-24.2	0.59	3.88	5.96	3.94	11.66	-3.06	11
BOB	9.21	-13.42	4.53	-7.64	1.18	1.23	1.5	11.86	18.34	18.95	4.57	8
UBI	9.73	6.84	2.91	-20.9	-15.57	-12.5	6.68	10.11	13.26	15.58	1.61	10
CB	11.06	-10.69	4.15	-16.74	1.4	-8.05	6.71	12.82	19.49	22.06	4.22	9
IB	8.34	5.46	9.97	8.27	2.28	4.35	10.63	12.13	14.73	19.24	9.54	6
HDFC	16.47	16.91	16.26	16.45	14.12	16.8	16.6	16.9	17.4	16.1	16.40	1
ICICI	14.3	11.3	10.3	6.6	3.2	7.1	12.2	14.8	17.3	18.7	11.58	4
KM	13.19	8.72	12.35	10.89	11.47	12.25	11.01	13.4	14.36	15.08	12.27	3
Axis	18.57	17.49	7.22	0.53	8.09	2.34	7.55	12.91	18.38	18.86	11.19	5
IndusInd	18.59	16.78	15.26	16.48	13.25	14.53	7.33	10.2	14.53	15.32	14.23	2
IDBI	3.85	-16.57	-30.08	-50.99	-48.94	-46.82	10.06	13.6	16.15	19.5	-13.02	12

Note: Return on Equity and Return on Average Equity are interchangeably used.

(Source: Annual Report of Selected Banks, moneycontrol.com)



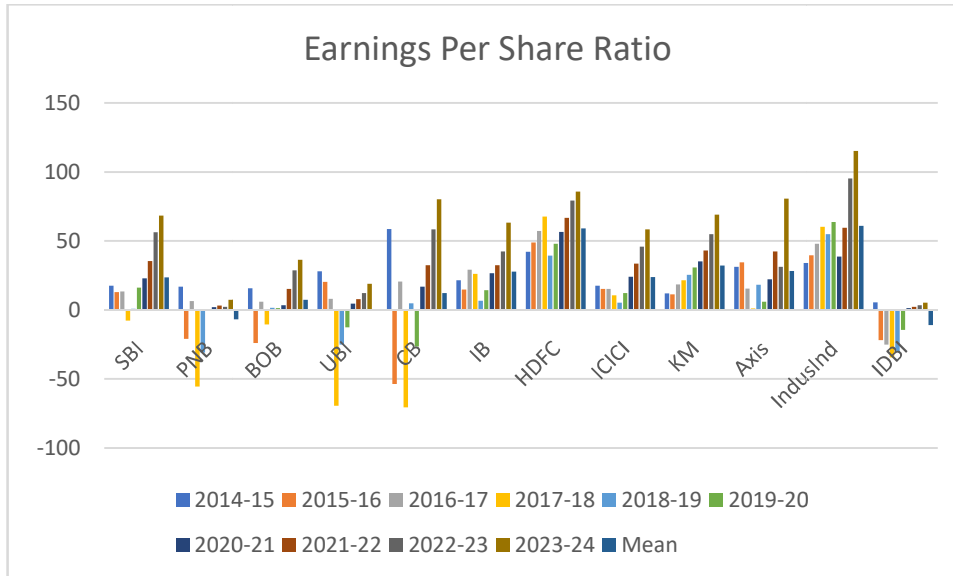
Interpretation

On the basis of last ten years, HDFC Bank gets the first rank with highest ROE ratio of 16.40 followed by IndusInd, KM, ICICI, Axis and IDBI in private sector banks, while IB gets the six rank with highest ROE ratio of 9.54 followed by SBI, BOB, CB, UBI and PNB in public sector banks. So, private sector banks have high ROE as compared to public sector banks.

Table 8: Earnings Per Share (Basic) Ratio (₹)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	17.55	12.98	13.43	-7.67	0.97	16.23	22.87	35.49	56.29	68.44	23.66	7
PNB	16.91	-20.82	6.45	-55.39	-30.94	0.62	2.08	3.16	2.28	7.49	-6.82	11
BOB	15.83	-23.89	6	-10.53	1.64	1.36	3.32	15.18	28.82	36.29	7.40	9
UBI	28.05	20.42	8.08	-69.45	-25.08	-12.49	4.54	7.73	12.34	18.95	-0.69	10
CB	58.59	-53.61	20.63	-70.47	4.71	-26.5	16.91	32.49	58.45	80.23	12.14	8
IB	21.62	14.81	29.27	26.21	6.7	14.33	26.61	32.38	42.41	63.23	27.76	5
HDFC	42.15	48.84	57.18	67.76	39.33	48.01	56.6	66.8	79.3	85.8	59.18	2
ICICI	17.56	15.23	15.31	10.56	5.23	12.28	24.01	33.66	45.79	58.38	23.80	6
KM	12.1	11.42	18.57	21.54	25.52	30.88	35.17	43.02	54.89	69.15	32.23	3
Axis	31.18	34.59	15.4	1.13	18.2	5.99	22.15	42.48	31.17	80.67	28.30	4
IndusInd	33.99	39.68	48.06	60.19	54.9	63.75	38.75	59.57	95.32	115.19	60.94	1
IDBI	5.45	-21.77	-25.05	-34.45	-30.48	-14.48	1.3	2.27	3.39	5.24	-10.86	12

(Source: Annual Report of Selected Banks, moneycontrol.com)



Interpretation

On the basis of last ten years, IndusInd Bank gets the first rank with highest EPS ratio of 60.94 followed by HDFC, KM, Axis, ICICI and IDBI in private sector banks, while IB gets the fifth rank with highest EPS ratio of 27.76 followed by SBI, CB, BOB, UBI and PNB in public sector banks. So, private sector banks have high EPS as compared to public sector banks.

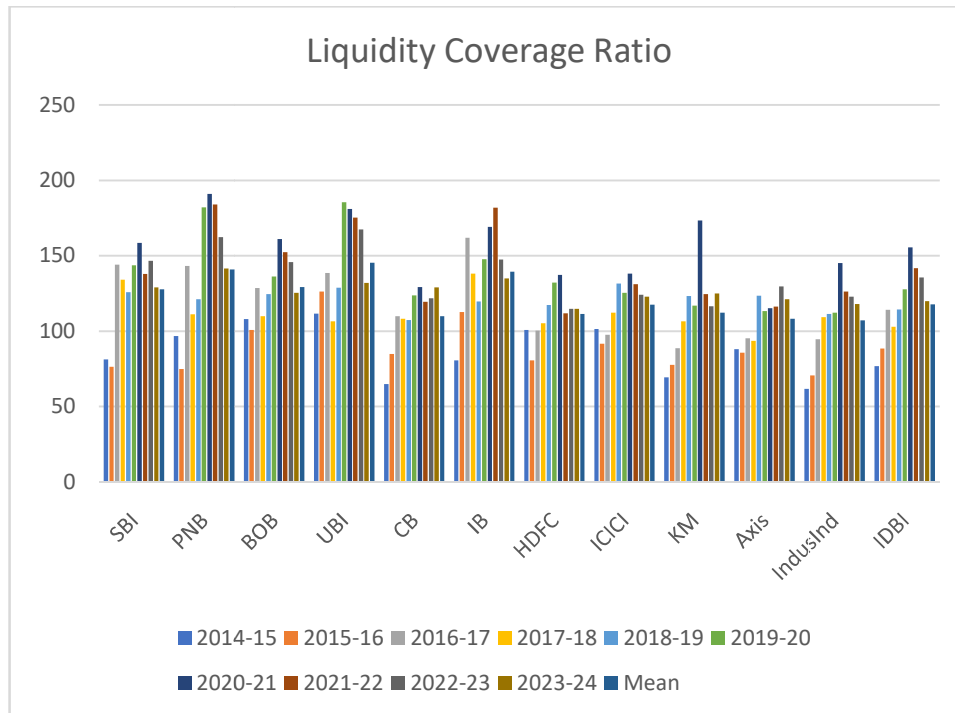
Liquidity

Liquidity is the capability of banks to meet its financial obligations. High liquidity means banks are not making the proper utilization of cash. Low liquidity means banks are not capable to meet its current financial liabilities.

Table 9: Liquidity Coverage Ratio (%)

Banks	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Mean	Rank
SBI	81.19	76.36	144.06	134.05	125.79	143.59	158.6	137.97	146.61	129.00	127.72	5
PNB	96.79	74.93	143.16	111.23	121.27	182.02	190.97	183.92	162.29	141.61	140.82	2
BOB	108.11	100.9	128.58	109.91	124.56	136.27	161.18	152.36	145.78	125.4	129.31	4
UBI	111.65	126.17	138.65	106.6	128.76	185.42	181.01	175.38	167.42	131.9	145.30	1
CB	64.95	84.92	110.02	108.27	107.49	123.78	129.18	119.41	121.79	129.04	109.89	10
IB	80.74	112.61	161.93	138.17	119.72	147.68	169.04	181.8	147.55	135.01	139.43	3
HDFC	100.8	80.61	100.28	105.16	117.28	132.2	137.24	111.89	114.85	114.73	111.50	9
ICICI	101.45	91.62	97.67	112.25	131.5	125.38	138.13	131.09	124.13	122.84	117.61	7
KM	69.42	77.75	88.66	106.48	123.4	117.03	173.31	124.58	116.45	124.92	112.20	8
Axis	88.05	85.75	95.24	93.61	123.61	113.41	115.14	116.2	129.59	121.17	108.18	11
IndusInd	61.74	70.66	94.61	109.38	111.39	112.3	145.11	126.33	122.96	117.95	107.24	12
IDBI	76.74	88.59	114.17	102.87	114.37	127.68	155.59	141.7	135.66	119.84	117.72	6

(Source: Annual Report of Selected Banks, moneycontrol.com)



Interpretation

On the basis of last ten years, UBI Bank gets the first rank with highest LCR of 145.30 followed by PNB, IB, BOB, SBI and CB in public sector banks, while IDBI gets the six rank with highest LCR ratio of 117.72 followed by ICICI, KM, HDFC, Axis and IndusInd in private sector banks. So, public sector banks have high liquidity as compared to private sector banks.

Overall Financial Performance of Selected Banks in India

On the basis of last ten years i.e. 2014-15 to 2023-24, studied on above CAMEL Model analysis, in terms of capital adequacy, asset quality, management efficiency and earning capacity, overall private sector banks has good performance as compared to public sector banks. While in terms of liquidity, public sector banks has good performance as compared to private sector banks.

Findings and Suggestions

This paper brings out that private sector banks are having better financial efficiency with respect to CAMEL Model parameters such as capital adequacy, assets quality, management soundness, earnings and liquidity. Public sector banks have more liquidity as compared with private sector banks. Private sector banks have good financial efficiency but they should be careful about sufficient liquidity whenever required. Public sector banks must improve financial efficiency in terms of all parameters of CAMEL Model except liquidity. Excessive liquidity might reduce financial efficiency of public sector banks henceforth it is suggested that public sector banks should avoid idle liquidity.

Conclusion

Banking system of a country is important for an economy. The Reserve Bank of India had adopted CAMEL rating system in 1996 to evaluate the performance of the banks. The present study evaluates the performance of twelve banks, i.e. 6 private sector and 6 public sector banks. The results show that private sector banks have good financial efficiency as compared with public sector banks. The private sector banks need to have sufficient liquidity and public sector banks must focus on capital adequacy, asset quality, management efficiency and earning quality as per CAMEL Model.



Delimitations of the Study

This study is restricted only for 10 years. The study is based on secondary data which has been collected from online resources only. It covers only selected 6 public sector and 6 private sector banks in India. Therefore, the results may not be generalized to the other sector banks.

References

- Shah, I. S., & Jha, H. M. (2023). Comparative analysis of the financial performance of select public sector and private sector banks from 2017-2022. *International Research Journal of Modernization in Engineering Technology and Science*, 05(04), 3045–3050. <https://doi.org/10.56726/IRJMETS36291>
- Madhavi, (2023). A comparative study of financial performance of public and private sector bank in India. *International Journal of Management*, 14(06), 1-8. <https://doi.org/10.17605/OSF.IO/29RZG>
- Singh, D., & Sharma, S. (2022). Analysis of financial performance of selected banks in India: A comparative study on public sector banks and private sector banks. *International Journal of Applied Research*, 8(2), 410–416. <https://doi.org/10.22271/allresearch.2022.v8.i2f.9477>
- Gayathri, K., & Sindhu, L. (2018). The impact of demonetization on public and private sector banks. *International Journal of Research and Analytical Reviews*, 5(4), 258-262.

Websites:

www.rbi.org.in
<https://www.bankofbaroda.in/shareholders-corner/annual-reports>
<https://www.bseindia.com/bseplus/AnnualReport/500112/5001120320.pdf>
<https://rbi.org.in/commonman/english/scripts/banksinindia.aspx#NB>
<https://www.bankofbaroda.in/shareholders-corner/annual-reports>
<https://www.bseindia.com/bseplus/AnnualReport/500112/5001120320.pdf>
www.Moneycontrol.co
www.moneycontrol.com/financials/
<https://www.sbi.co.in/>
<https://www.pnbindia.in/>
www.bankofbaroda.co.in/
www.hdfcbank.com/
www.icicibank.com/
www.axisbank.com/
<https://www.nseindia.com/regulations/listing-compliance///nse-market-capitalisation-all-companies> Retrieved on 20.12.2024



FORENSIC ACCOUNTING AND FRAUD DETECTION: AN OVERVIEW IN THE DIGITAL AGE

By

Dr. Nirali Ketan Shah

Assistant Professor

Gujarat Arts & Commerce College (Eve), Ahmedabad

&

Dr. Gargi Patel

Assistant Professor

City C.U. Shah Commerce College, Ahmedabad

Abstract

Any economic entity's survival and growth are severely hampered by the increasing complexity of business and commercial operations, financial irregularities, and the blind obsession with maximizing profits at all costs, which, when taken too far, can result in failures like SATYAM and ENRON. WORLDCOM is one such example. Investigating financial irregularities and fraud in order to produce legal evidence in court is the focus of the specialist area of accounting known as forensic accounting. The function of forensic accounting in fraud detection, as well as its methods, strategies, and difficulties faced by forensic accountants, are all examined in this study. Highlighting the value of this field in both the public and commercial sectors, it delves deeper into the role that forensic accounting plays in preventing corporate fraud, money laundering, and other financial crimes. Through the use of cutting-edge technology like artificial intelligence (AI), big data analytics, and machine learning, forensic accounting has undergone tremendous change in the digital age in order to identify and stop financial fraud. The adoption of these forensic accounting techniques is required due to the prevalence of digital data and the growing complexity of financial crimes

Introduction

The field of forensic accounting uses investigative methods and accounting expertise to find financial misbehavior and fraud. In both the public and corporate sectors, it is essential for detecting and stopping fraud. This article aims to investigate the role of forensic accounting in fraud detection by looking at the techniques, resources, and difficulties faced by experts in the field. Asset theft, financial statement fraud, and corruption are just a few of the various ways that fraud can manifest itself. The need for forensic accountants who can identify, look into, and stop corporate fraud is greater than ever due to the rise in these crimes.

Literature Review

- Smith, J., & Johnson, M. (2018). The Role of Data Analytics in Forensic Accounting: A Review of Recent Studies. *Journal of Forensic Accounting Research*. This analysis provides an overview of recent research on the application of data analytics in forensic accounting investigations. It observes the various techniques and methodologies used in analyzing financial data to detect fraud and other financial crimes.
- Brown, A., & Williams, L. (2019). Leveraging Artificial Intelligence for Fraud Detection in Forensic Accounting: A Systematic Review. *International Journal of Accounting and Finance*. This systematic review explores how artificial intelligence is utilized for fraud detection in forensic accounting investigations. The article identifies the strengths and limitations of AI techniques and proposes recommendations for optimal implementation.



- Dr. Percy Bose B (2023), “Role Of Forensic Accounting In India, In view of the growing number of corporate frauds in India, this exploratory and theoretical study aims to illustrate the reach and methodology of forensic accounting.
- Johnson, R., & Lee, C. (2020). Data Mining Techniques in Forensic Accounting: A Literature Review. *Journal of Financial Crime*. Data mining methods used in forensic accounting are examined in this overview of the literature. The study underlines how well data mining works to spot trends in financial crime and how these techniques may be used to detect fraud.
- Orfali (2024), This study is focused on assessing how well new forensic accounting technologies enhance the efficiency of fraud detection and comparing it to previous studies. A variety of techniques, including regression analysis, Beneish M-Score, and Benford's Law, were used in a comprehensive methodology to assess the effectiveness of forensic accounting on 100 companies. Furthermore, the effect of employing blockchain on transparency and detecting fraud was examined for 50 companies. The results of the regression analysis show that both data analytics ($\beta=0.35$) and AI ($\beta=0.30$) have a substantial positive impact on improving fraud detection effectiveness. Businesses that have a large number of transactions and utilize blockchain technology show better transparency and traceability, leading to better detection of fraud. The Beneish M-Score detected multiple companies that may be manipulating earnings, supporting previous research results. The utilization of advanced technologies like AI, blockchain, and data analytics significantly enhances the efficiency of forensic accounting in detecting and preventing fraud. Nevertheless, a significant amount of funds must be invested in infrastructure and training to achieve successful implementation.
- Ashwin R, Parasuram Praveen M and Shashank Subbaiah KK(2018),” Impact Of Forensic Accounting On Fraud Detection”, The purpose of the study is to describe how forensic accounting affects different industries. The primary purpose of the article is to explain how forensic accounting affects the company's stock values. Five firms' stock prices have been examined: TYCO International, Freddie Mac, WorldCom, Enron, and Health South. This essay investigates the profound effect that forensic accounting has on the company's standing and worth.
- White, D., & Adams, S. (2021). Ethical Considerations in the Use of Data Analytics and AI in Forensic Accounting Investigations: A Review. *Journal of Business Ethics*. The ethical issues surrounding the use of AI and data analytics in forensic accounting are the main topic of this review study. The writers talk about privacy issues, openness, and equity while using cutting-edge technology to look into fraud.
- Green, T., & Martinez, K. (2019). Machine Learning Applications in Forensic Accounting: A Review. *Journal of Accounting Information Systems*. This comprehensive review examines the growing applications of machine learning in forensic accounting. The study evaluates the effectiveness of machine learning algorithms in detecting fraudulent activities and recommends areas for further research.
- Ronak Gupta, Gayatri Mamdage, Prof. Surekha Gaikwad (2024),” The Role of Forensic Accounting in Fraud Detection” The goal of this study is to assess the effectiveness of forensic accounting methods in detecting fraud, with a particular focus on the tools, techniques, and challenges faced by professionals in the field. By observing survey data collected from forensic accountants, auditors, and other industry experts, this paper evaluates the common types of fraud, the efficacy of different forensic techniques, and sector-specific challenges. The research also explores the role of technology, such as data analytics and digital forensics, in enhancing fraud detection. The conclusions highlight



the significance of continuous adaptation of forensic practices and technological advancements to address evolving fraud tactics. The study concludes by offering recommendations for improving fraud detection and prevention across sectors.

- Nisha Chaturvedi (2015), Forensic Accounting in India (Future Prospects for Its Application), This study aims to investigate the significance, nature validity, and future possibilities in India. The issue of fraud and financial mismanagement in business organizations appears to have a remedy in forensic accounting. The idea of forensic accounting, its necessity, and its function in addressing the issue of fraud in corporate settings are all covered in this article.
- Mrs. Sangeetha. G and Harshitha.M,” (2023), “An Exploratory Study on the use of Data Analytics and Artificial Intelligence in Forensic Accounting Investigations.” The purposed of this exploratory study is to look into how AI and data analytics are used in forensic accounting investigations. This research study offers important insights into the changing field of forensic accounting practices by analyzing the acceptance and use of these cutting-edge technologies in the detection of financial fraud, embezzlement, and other financial crimes. This paper used an exploratory research design to shed light on the usage of AI in forensic investigations. Additionally, the study looks at the potential drawbacks and ethical issues of the present, AI-free forensic accounting investigations before offering recommendations for integrating AI into these.

Need of the Study

To enhance the reputation of corporate sectors, forensic accounting is necessary to reduce financial frauds. Accounting policies and procedures are strictly adhered to thanks to forensic accounting, which also makes sure that any odd objects added to the system are found. The purpose of this study is to determine how forensic accounting expertise might lessen corporate fraud and poor management.

Statement of the Problem

A number of frauds have been perpetrated in the corporate sectors of the economy in recent years. The goal of this research is to determine how forensic accounting expertise might lessen corporate fraud and poor management.

Objectives of the Study

1. To determine the types of frauds committed in India.
2. To study the Function of Forensic Accounting in Identifying Fraud.
3. To understand the Conventional and Digital Fraud Detection techniques used in Forensic accounting.
4. To study Forensic Accounting's Significance in the Contemporary World
5. To study Obstacles in the Digital Age for Fraud Detection
6. To identify the major scams in India.
7. To determine present perspective of forensic accounting in India.

The Function of Forensic Accounting in Identifying Fraud

Training equips forensic accountants to examine financial information, spot irregularities, and track down the origin of illegal activities. The following are some ways that forensic accounting aids in the discovery of fraud:

- Examining Unusual Financial Activities: To find evidence of financial manipulation or fraudulent activity, forensic accountants review accounting records and transactions. This includes examining financial statements for odd trends or inconsistencies.



- Presenting Proven Proof: To generate evidence that can be utilized in court, forensic accountants frequently collaborate closely with law enforcement and legal experts. Their conclusions could be very important for fraudsters' prosecution.
- Fraud Prevention and Risk Management: By locating weak points in an organization's financial systems, forensic accountants also take the initiative. Their assistance in designing internal controls and risk management strategies to prevent fraud.

Increasing Fraud Hazards in the Digital Era

There are now a number of new forms of fraud brought about by the digital revolution, especially in fields like:

- Cyber Fraud: Cyber fraud refers to fraudulent practices, such as identity theft, hacking and phishing, that are conducted online.
- Data Manipulation and Financial Statement Fraud: The growing dependence on automated financial reporting systems has made it easier for fraudsters to fabricate reports and manipulate data in order to mislead stakeholders.
- Cryptocurrency fraud: Ponzi schemes, fraudulent initial coin offerings (ICOs), and pump-and-dump scams are some of the new types of fraud that have emerged as a result of the emergence of cryptocurrencies.
- Internal Fraud: Internal fraud and employee theft have become more likely as businesses move toward remote work and digital operations, particularly with regard to digital technologies that circumvent conventional checks and balances.

Conventional Methods of Forensic Accounting

Even though new tools have been made available by the digital age, old forensic accounting methods are still essential:

- Document Examination: Examining paper and digital records for indications of errors, changes, or contradictions is known as document examination.
- Financial Analysis: Examining financial statements in-depth in order to find anomalies or warning signs.
- Interviews and Surveillance: To find fraudulent activity, interview suspects, witnesses, and staff members in addition to conducting physical surveillance.

Digital Fraud Detection Tools and Techniques/ Forensic Accounting Methods and Techniques

Forensic accountants now have more advanced techniques to identify and look into fraud thanks to technological integration. These tools are classified into multiple categories:

- **Analyzing and Visualizing Data:**

Forensic accountants can examine enormous amounts of financial data using data analytics to find trends or irregularities. Important methods consist of:

Benford's Law: A statistical method for spotting irregularities in data sets, especially when it comes to spotting false financial reporting.



Predictive analytics: By forecasting possible fraudulent activity based on historical data, this technique makes fraud detection more proactive.

Data Mining: Finding hidden patterns in big data sets to identify fraud is known as data mining. Methods including anomaly detection, classification, and grouping are commonly employed.

Visualization Tools: By enabling forensic accountants to produce visual representations of financial data, such as Tableau or Power BI, anomalies can be more easily identified.

- **Digital Forensics**

Investigating fraud in the digital sphere requires the use of digital forensics. It entails recovering and analyzing data from digital devices, such as servers, computers, and smartphones, in order to find proof of wrongdoing or fraud. Crucial techniques consist of:

Disk Imaging: Making precise duplicates of hard disks in order to examine and unearth buried or erased data is known as disk imaging.

Analysis of Email and Communication: Examining digital communications, including email exchanges, to identify fraudulent activity.

Metadata Analysis: Analyzing file metadata to find hidden information, illegal access, or changes made to digital assets.

- **Ongoing Observation and Evaluation**

The development of enterprise resource planning (ERP) systems and cloud computing has made real-time data analysis easier. Financial transactions can be continuously monitored via continuous monitoring systems, which can identify questionable activity as soon as it happens. These instruments consist of:

Automated Alerts: Programs that, in response to preset parameters, such as anomalous transaction volumes or frequency, automatically highlight anomalous transactions or trends.

Real-Time Auditing: This method uses AI and machine learning to continuously audit financial transactions and make sure that fraud is identified as soon as it occurs.

Blockchain Analysis: Because of its transparency, blockchain is a useful tool for identifying fraudulent transactions, particularly in contexts involving cryptocurrencies. Blockchain transactions can be examined by forensic accountants to look for anomalies or illegal activity.

- **The concepts of machine learning (ML) and artificial intelligence (AI)**

With the help of AI and ML, forensic accounting is evolving to provide more advanced fraud detection and prediction capabilities:

Fraud Detection Algorithms: Anomalies and patterns of fraud can be instantly identified by training machine learning algorithms. By studying past fraud cases, these algorithms are able to adjust to new fraud methods.

Natural Language Processing (NLP): Artificial intelligence (AI)-driven NLP technologies may examine financial documents, emails, and contracts to look for possible signs of fraud, like odd or strange wording.



- **Forensics of Blockchain and Cryptocurrency**

In order to track and examine blockchain transactions, forensic accountants have created specialized tools as cryptocurrencies have grown in popularity. These methods facilitate the detection of fraudulent operations, including ransomware payments, Ponzi scams, and money laundering. The following are some methods:

Blockchain Analysis Software: Forensic accountants can track and trace bitcoin transactions, identify people involved, and spot odd patterns with platforms like Chainalysis and CipherTrace.

Private Key Analysis: Examining the private keys linked to bitcoin transactions in order to find instances of fraud or unlawful activity.

Forensic Accounting's Significance in the Contemporary World

Forensic accounting's importance is growing as a result of various worldwide trends:

- **An increase in financial crimes:**

In order to identify and stop fraud, specific knowledge is needed due to the recent increase in the complexity and sophistication of financial crimes. For instance, the growth of cybercrime has increased the difficulty but also the importance of fraud detection and prevention.

- **Business scandals and poor financial management:**

Enron, WorldCom, and other corporate scandals have shown the disastrous effects of deception in the business sector. Finding these fraudulent acts and guaranteeing responsibility require the assistance of forensic accountants.

- **Requirements for Regulation:**

Following financial crises, governments and regulatory agencies have tightened their requirements for financial reporting. Forensic accountants assist companies in adhering to these rules by identifying any anomalies in financial records and assisting in the prevention of fraud.

- **Transparency and Public Trust:**

By guaranteeing that businesses and people behave honorably, forensic accounting contributes to the public's increased confidence in financial institutions. This openness is essential to creating a positive business climate.

Obstacles in the Digital Age for Fraud Detection

Despite technological progress, forensic accounting still faces a number of difficulties:

Complexity and Volume of Data: Forensic accountants may become overwhelmed by the share amount of digital data, which makes it challenging to find pertinent information.

- **Lack of Standardization:** Digital forensic techniques lack a global standard, which may cause discrepancies in investigations and conclusions. Forensic accountants need to be on the lookout for digital dangers that could jeopardize the integrity of their investigations since fraudsters frequently utilize cutting-edge technology to hide their trails.

- **Privacy and Legal Issues:** When analyzing digital records, privacy and legal issues are frequently brought up, especially when emails, personal data, and other private information are involved.

The Operation of Forensic Investigations

Forensic investigations can be time-consuming and highly complex. They frequently need the use of specialized tools and techniques as well as the handling of substantial volumes of financial data. Let's look at some actual instances of forensic accounting investigations in action.



Because firms and people are receiving increased attention from creditors, regulatory bodies, and other interested parties, forensic accounting investigations are becoming more common in India.

The Satyam scam:

The 2009 revelation of the Satyam Computer Services scam is among the most well-known instances of forensic accounting investigations in India. Over the course of several years, Satyam, a significant Indian IT business, fraudulently increased its sales and earnings by more than \$1 billion. Ramalinga Raju, the company's founder and chairman, was among the high-ranking officials arrested and convicted as a result of this incident. By closely reviewing financial records and transactions to identify anomalies and discrepancies, forensic accountants were instrumental in the discovery of fraud.

The NSEL Fraud:

An important part of the investigation into the National Spot Exchange Limited (NSEL) scam was forensic accounting. In 2013, the commodities market lost around Rs 5,500 crore due to fraudulent activity. Financial records were also investigated by forensic accountants. Transactions were discovered as proof of misconduct. Numerous people implicated in the scheme, including the exchange's founder and numerous high-ranking officials, were arrested as a result of the inquiry.

PNB Deception:

In India, forensic accountants have uncovered fraud in the banking industry by applying their knowledge and abilities. The Punjab National Bank (PNB) was involved in a significant fraud case in 2018. Fraudulent letters of undertaking (LoUs) were used by rogue insiders to secure loans from other financial institutions. The bank lost about Rs 14,000 crore as a result of the theft. Many people were consequently detained, including senior bank officials. The work of forensic accountants was essential in identifying the deception. To hunt for any errors or oddities, they examined financial data and transactions.

Crucial elements of digital-era forensic accounting include

The effectiveness of forensic accounting techniques:

- Fraud can be found using forensic accounting techniques, including data analysis and forensic auditing. Data analytics, forensic auditing, and anomaly detection are employed to detect and stop many forms of fraud.
- The function of technology Although the expense and complexity of technology may limit its full potential, it improves the accuracy and efficiency of fraud detection. To increase the accuracy and effectiveness of forensic investigations, digital techniques and technologies—such as artificial intelligence (AI) and big data—are being used more and more.
- The revolutionary role of AI By automating difficult operations and revealing hidden fraud tendencies, artificial intelligence (AI) empowers auditors and forensic accountants to examine large datasets with previously unheard-of precision and speed. AI greatly cuts down on the amount of time needed for forensic investigations and increases the accuracy of fraud detection.
- The analysis of big data Big data frameworks provide better fraud prevention tools and deeper insights. By spotting patterns and irregularities that conventional techniques might miss, big data technology integrated into forensic accounting frameworks helps reduce internal fraud.
- Blockchain technology Blockchain provides a decentralized, unchangeable database that improves financial transaction transparency and traceability.



- Difficulties Concerns over data privacy, the requirement for constant AI algorithm changes, and possible biases in AI models are some of the difficulties associated with the deployment of these technologies.
- Constant observation increasingly proactive and ongoing monitoring techniques are becoming increasingly popular as forensic accounting develops.

The Prospects of Digital Age Forensic Accounting

It's likely that ongoing technological developments may influence forensic accounting in the future. Here are a few significant trends:

Combining Automation And Artificial Intelligence

AI is being used more and more to automate data analysis, fraud detection, and pattern recognition so that forensic accountants can concentrate on more difficult jobs.

Cooperation with Cybersecurity Experts

To address the relationship between financial fraud and cybercrime, forensic accountants will increasingly work in tandem with cybersecurity specialists.

Blockchain as a Transparency Tool

As blockchain technology develops, it might be used more frequently to stop and identify fraud, especially in industries like banking and finance.

Increased Predictive Analytics Focus

Reactive to proactive fraud detection will become more prevalent as predictive models are used to anticipate possible fraud risks before they materialize.

Suggestions

Several actions can be made to increase forensic accounting's efficacy in fraud detection:

- Improved Education and Training: To remain ahead of new fraud schemes, forensic accountants should get advanced training in data analytics, digital forensics, and emerging technologies.
- Stronger Regulatory Frameworks: To stop fraud and enhance forensic accountants' detection skills, governments and financial institutions should enact stricter laws.
- Improved Cooperation with Law Enforcement: To guarantee that evidence is handled appropriately and that fraudsters are prosecuted, forensic accountants ought to work more closely with legal and law enforcement agencies.
- Investment in Technology: To help forensic accountants spot possible fraud more rapidly and precisely, businesses and organizations should spend money on cutting-edge data analytics tools and software.

Conclusion

Digital tools and procedures have brought about a substantial revolution in forensic accounting. Even if conventional techniques still have a place in fraud detection, the digital era has brought with it both new possibilities and challenges. Digital forensics, blockchain technology, artificial intelligence, machine learning, and data analytics have made forensic accountants more capable than ever of identifying and stopping fraud. But because fraudsters are always coming up with new ways to do things, forensic accountants need to keep ahead of the curve and adjust to a constantly shifting digital environment.



References

- Albrecht, W. S., Albrecht, C. C., & Albrecht, C. O. (2012). *Forensic Accounting and Fraud Examination* (2nd ed.). Cengage Learning.
- Crumbley, D. L., Heitger, L. E., & Smith, G. S. (2005). *Forensic Accounting: A Guide to Fraud Detection and Prevention*. CCH.
- Hopwood, W., Leiner, J., & Young, G. (2008). *Forensic Accounting and Fraud Examination*. Pearson Prentice Hall.
- Rezaee, Z., & Riley, R. (2010). *Financial Statement Fraud: Prevention and Detection*. Wiley.
- Mrs. Sangeetha. G. and Harshitha. M,” (2023), “An Exploratory Study on the use of Data Analytics and Artificial Intelligence in Forensic Accounting Investigations.” 2023 JETIR August 2023, Volume 10, Issue 8 www.jetir.org (ISSN-2349-5162),JETIR2308224 *Journal of Emerging Technologies and Innovative Research (JETIR)* www.jetir.org
- Mustafa Ali, Raad Fejer Futaih, Mahmood Shukur and Asmaa Kahtan Al-Orfali,” *Forensic Accounting and Fraud Detection Emerging Trends and Techniques Ahmed*” *Journal of Ecohumanism* 2024 Volume: 3, No: 5, pp. 525 – 542 ISSN: 2752-6798 (Print) | ISSN 2752-6801 (Online), <https://ecohumanism.co.uk/joe/ecohumanism> DOI: <https://doi.org/10.62754/joe.v3i5.3921>
- Ashwin R, Parasuram Praveen M and Shashank Subbaiah KK, “Impact Of Forensic Accounting On Fraud Detection”,JETIR November 2018, Volume 5, Issue 11 www.jetir.org (ISSN-2349-5162)
- Dr. Percy Bose B, “Role Of Forensic Accounting In India”, *international Journal of Novel Research and Development* (www.ijnrd.org) c56 I 2023 IJNRD | Volume 8, Issue 3 March 2023 | ISSN: 2456-4184 | IJNRD.ORG
- Nisha Chaturvedi, “Forensic Accounting in India (Future Prospects for Its Application)”, *International Journal of Recent Research in Commerce Economics and Management (IJRRCEM)* Vol. 2, Issue 1, pp: (133-139), Month: January - March 2015, ISSN 2349-7807, Available at: www.paperpublications.org
- Christeena Raphy and Aparna Mohan,” *Forensic Accounting Techniques in the Digital Age: A Comprehensive Review*”, *International Research Journal of Engineering and Technology (IRJET)* e-ISSN: 2395-0056 Volume: 11 Issue: 08 | Aug 2024 www.irjet.net p-ISSN: 2395-0072.
- Ronak Gupta¹, Gayatri Mamdage², Prof. Surekha Gaikwad,” *The Role of Forensic Accounting in Fraud Detection*”, *IJARST* ISSN (Online) 2581-9429 *International Journal of Advanced Research in Science, Communication and Technology (IJARST)* International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal Volume 4, Issue 2, November 2024 Copyright to IJARST DOI: 10.48175/568 254 www.ijarst.co.in Impact Factor: 7.53



STUDY OF DIRECT TAX TRENDS IN INDIA- 2014-15 TO 2024-25 (ભારતમાં પ્રત્યક્ષ કરના વલણોનો અભ્યાસ- 2014-15 થી 2024-25)

By

Chavda Ashokkumar Gopalbhai

T. N. Rao College of Teachers Education, Rajkot

સારાંશ

આ અભ્યાસ ભારતમાં પ્રત્યક્ષ કરના વલણો તપાસવા માટે હાથ ધરવામાં આવ્યો છે. જેમાં વર્ષ 2014-15 થી 2023-24 સુધીની પ્રત્યક્ષ કરની માહિતી મેળવવામાં આવી છે. દેશમાં સરકાર દ્વારા બે પ્રકારના કર લેવામાં આવે છે જેમાં પ્રત્યક્ષ કર અને પરોક્ષ કરનો સમાવેશ થાય છે. પ્રત્યક્ષ કર સરકાર દ્વારા સીધી રીતે લેવામાં આવે છે. પ્રસ્તુત અભ્યાસમાં કોર્પોરેટ કર, વ્યક્તિગત આવક કર અને અન્ય પ્રત્યક્ષ કરનો અભ્યાસ કરવામાં આવ્યો છે. અભ્યાસના તારણો દર્શાવે છે કે વર્ષ 2014-15 પછી પ્રત્યક્ષ કરમાં વધારો થયો હતો જેવર્ષ 2018-19 સુધી ક્રમશઃ વધારો થયો હતો પણ કોર્પોરેટ કરના દરમાં ઘટાડો, મંદી, કોરોના મહામારી વગેરે જેવા કારણોને લીધે વર્ષ 2019-20 અને 2020-21 માં પ્રત્યક્ષ કરમાં ઘટાડો થયો હતો. વર્ષ 2021-22 બાદ પ્રત્યક્ષ કરમાં વધારો થયો.

Keywords: ભારત, પ્રત્યક્ષ કર, વલણો, કોર્પોરેટ કર, વ્યક્તિગત આવક કર

પ્રસ્તાવના

ભારતમાં સરકાર પોતાની જવાબદારી પૂરી કરવા માટે અનેક વિકાસ કાર્યો કરે છે એ માટે સરકારને આવકની જરૂર પડે છે. જે સરકાર જુદી-જુદી રીતે મેળવે છે. દેશમાં પ્રત્યક્ષ અને પરોક્ષ કર દ્વારા સરકાર આવક પ્રાપ્ત કરે છે. પ્રત્યક્ષ કર એ ભારતની રાજકોષીય નીતિનો મહત્વનો ઘટક છે. ભારતના રાજકોષીય માળખામાં વ્યક્તિગત આવક કર, કોર્પોરેટ કર અને અન્ય પ્રત્યક્ષ કરની મહત્વની ભૂમિકા છે તે સરકાર માટે એક મહત્વપૂર્ણ આવકનો સ્ત્રોત છે. માળખાગત સુવિધાઓ, સામાજિક કલ્યાણ અને આર્થિક વિકાસ પર જાહેર ખર્ચને સક્ષમ બનાવે છે.

સંબંધિત સંદર્ભ સાહિત્યની સમીક્ષા

Bera, D., Bera, S. (2024) "A Comparative Study of Direct and Indirect Tax Revenue Collection and its Impact on GDP"

પ્રસ્તુત સંશોધન અભ્યાસમાં પ્રત્યક્ષ અને પરોક્ષ કરવેરા આવક સંગ્રહ અને તેની GDP પર અસરનો તુલનાત્મક અભ્યાસ કરવામાં આવ્યું છે. સરકારનું ધ્યેય પ્રજા પાસેથી આવક પ્રાપ્ત કરવાનું હોય છે. જેથી કરીને જાહેર ખર્ચ અને વહીવટ સાથે સંકળાયેલ સેવાઓને પહોંચી વળે. આગ્રાદી બાદ ભારતીય કર માળખામાં જરૂરિયાત અનુસાર ફેરફાર કરવામાં આવ્યા છે. સરકાર આવક, ચીજવસ્તુ અને સેવાના વેચાણમાંથી નાણાં એકત્ર કરવાના માર્ગ તરીકે કર લાદે છે. આ સંશોધન અભ્યાસનો પ્રાથમિક હેતુ ભારતમાં કુલ કર આવક સંગ્રહ પર પ્રત્યક્ષ અને પરોક્ષ કરના યોગદાનને જાણવાનો અને નાણાકીય વર્ષ 2013-2014 થી નાણાકીય વર્ષ 2022-2023 સુધી GDP માં પ્રત્યક્ષ અને પરોક્ષ કરના યોગદાન વચ્ચે તફાવત રહેલો છે કે કેમ તે ઓળખવાનો છે. આ સંદર્ભમાં, અહીં ચાર્ટ, કોષ્ટકો, ટેબલ ટી ટેસ્ટનો ઉપયોગ કર્યો છે. સંશોધનના તારણો પરથી જોઈ શકાય છે કે મહેસૂલમાં 2013-14 થી 2018-19 દરમિયાન પ્રત્યક્ષ કરની આવક વસૂલાતમાં વધારો થયો છે. જો કે, કોવિડ-19ની અસરને કારણે તે 2018-19 થી 2020-21 સુધી ઘટ્યું હતું. તે પછી, પ્રત્યક્ષ કરનું પ્રમાણ ધીમે ધીમે વધ્યું હતું. પરોક્ષ કર 2013-14 થી 2022-23 સુધી સતત વધ્યો છે. આથી પરોક્ષ કરની આવક એકત્રિત કરવા પર કોવિડ-19ની કોઈ અસર થઈ શકી નથી. અભ્યાસ એ પણ દર્શાવે છે કે ભારતમાં પરોક્ષ કરમાંથી જીડીપીના યોગદાનમાં તફાવત પ્રત્યક્ષ કરના ફાળો જેટલો મોટો છે.



Rani, R., Poonia, U. (2014) “Relative Contribution of Direct and Indirect Tax to Total Tax Revenue in India”

ભારતમાં કુલ કર આવકમાં પ્રત્યક્ષ અને પરોક્ષ કરનાયોગદાનનો અભ્યાસ કરવા માટે આ અભ્યાસ હાથ ધરવામાં આવ્યો હતો. આ સંશોધન ભારતીય અર્થતંત્ર અને આરબીઆઈની હેન્ડબુકમાંથી એકત્ર કરાયેલ ગૌણ ડેટા પર આધારિત છે. પ્રત્યક્ષ અને પરોક્ષ કરના ડેટાનું વિશ્લેષણ કરવા માટે સરળ ટકાવારી વિશ્લેષણનો ઉપયોગ કરવામાં આવ્યો છે. કોષ્ટકો અને લાઇન ચાર્ટનો ઉપયોગ કરીને ડેટા રજૂ કરવામાં આવ્યો છે. પ્રત્યક્ષ અને પરોક્ષ કરને લગતા ડેટાનું 22 વર્ષ એટલે કે 1991-92 થી 2012-13 સુધી વિશ્લેષણ કરવામાં આવ્યું છે. આ અભ્યાસના આધારે એવું તારણ કાઢવામાં આવ્યું છે કે કુલ કેન્દ્રીય કરની આવકમાં કેન્દ્રીય પ્રત્યક્ષ કરનું યોગદાન દર વર્ષે વધ્યું છે જ્યારે કેન્દ્રીય પરોક્ષ કરનું યોગદાન 1991-92થી ઘટ્યું છે પરંતુ 2009-10થી શરૂ કરીને છેલ્લા ત્રણ વર્ષમાં કેન્દ્રીય પ્રત્યક્ષ વેરના યોગદાનમાં ઘટાડો થવા લાગ્યો છે. રાજ્યોના કરના કિસ્સામાં, પ્રત્યક્ષ કરની આવકની સરખામણીમાં પરોક્ષ કરનું પ્રમાણ હંમેશા ઊંચા ટકા સાથે ઊંચું રહ્યું છે. એકંદરે, કુલ કર આવકમાં પરોક્ષ કરનો ફાળો હંમેશા વધુ રહ્યો છે પરંતુ બંને વચ્ચેની ટકાવારીનો તફાવત દર વર્ષે ઘણી હદ સુધી ઘટ્યો છે.

Parihar, B., Parihar, A. (2024) “Trends and Implications: Analysis of Collection of Direct Tax From Financial Year 2017-18 to 2022-23”

પ્રસ્તુત અભ્યાસમાં વર્ષ 2017-18 થી 2022-23 નાણાકીય વર્ષની પ્રત્યક્ષ કર વસૂલતાના વલણો અને અસરોનું વિશ્લેષણ કરવામાં આવ્યું છે. અભ્યાસ દ્વારા જાણી શકાયું છે કે સમયગાળા દરમિયાન પ્રત્યક્ષ કરની વસૂલાતમાં સમયગાળા દરમિયાન પ્રત્યક્ષ કરની વસૂલાતમાં સતત વધારો થયો છે. વર્ષ 2017-18 થી 2022-23 સુધી પ્રત્યક્ષ કરમાં નોંધપાત્ર વધારો થયો છે. વ્યક્તિગત કર ભરનારાઓની સંખ્યામાં વધારો થયો છે. જેમાં પગારદાર વ્યક્તિઓ, ધંધાદારઓ અને નાના વ્યવસાય માલિકોની સંખ્યામાં વધારો થયો છે. કંપનીઓ અને પેઢીઓ બંનેમાં કર ભરનારાની સંખ્યામાં વધારો થયો છે. જે કોર્પોરેટ ક્ષેત્રે મજબૂત વૃદ્ધિ દર્શાવે છે. કર આવકમાં ટ્રસ્ટ, સંગઠનો અને અન્ય કાનૂની સંસ્થાઓનું યોગદાનને પણ દર્શાવે છે. પણ તેમની સંખ્યા વ્યક્તિગત અને કોર્પોરેટ કર ભરનારાની તુલનામાં ઓછી છે. કરની વસૂલાત ઉપરનો આ વલણ આ સમયગાળા દરમિયાન અમલમાં મુકાયેલી કરનીતિઓ અને વહીવટી પગલાંની અસરકારકતા બતાવે છે. કર વસૂલાતમાં વૃદ્ધિ દેશના વિકાસ તરફ દોરી શકે છે.

હેતુઓ

- (1) ભારતમાં વર્ષ 2014-15 થી 2023-24 સુધીના પ્રત્યક્ષ કરના વલણો તપાસવા.
- (2) કોર્પોરેટ કર, વ્યક્તિગત કર અને અન્ય પ્રત્યક્ષ કરનું વિશ્લેષણ કરવું.

માહિતી વિશ્લેષણ

પ્રત્યક્ષ કર (કરોડમાં)

વર્ષ	કોર્પોરેટ કર	વ્યક્તિગત આવક કર	અન્ય પ્રત્યક્ષ કર	કુલ પ્રત્યક્ષ કર
2014-15	428925	265772	1095	695792
2015-16	453228	287637	1079	741945
2016-17	484924	349503	15286	849713
2017-18	571202	420084	11452	1002738
2018-19	663572	473179	967	1137718
2019-20	556876	492717	1088	1050681
2020-21	457719	487560	1897	947176

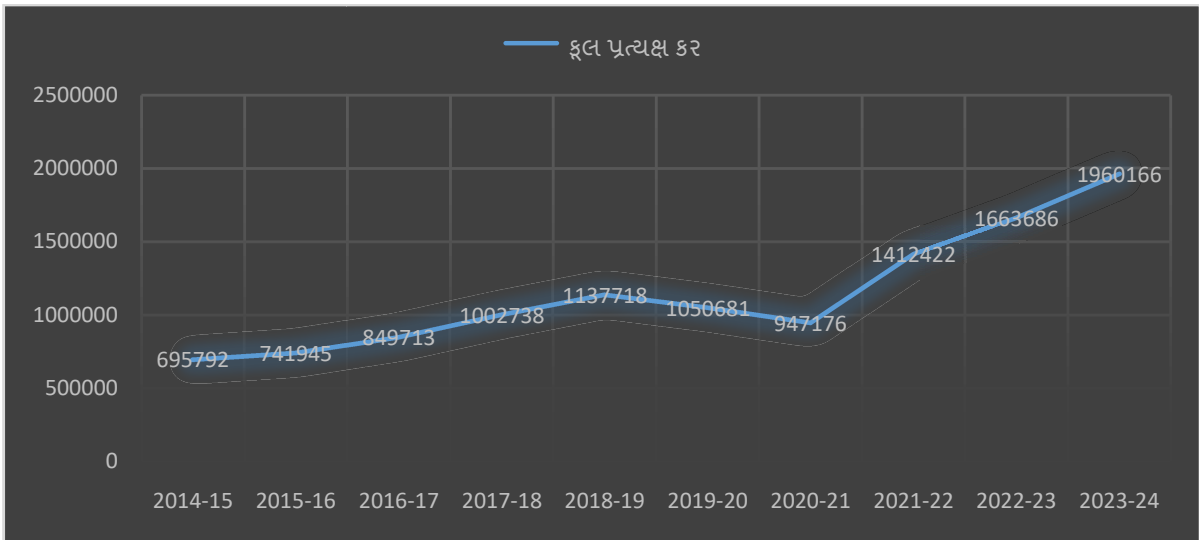


2021-22	712037	696604	3781	1412422
2022-23	825834	833307	4545	1663686
2023-24	911055	1045139	3972	1960166

Source: Union Finance Accounts of Respective Years and Reports of C&AG/Receipt Budget

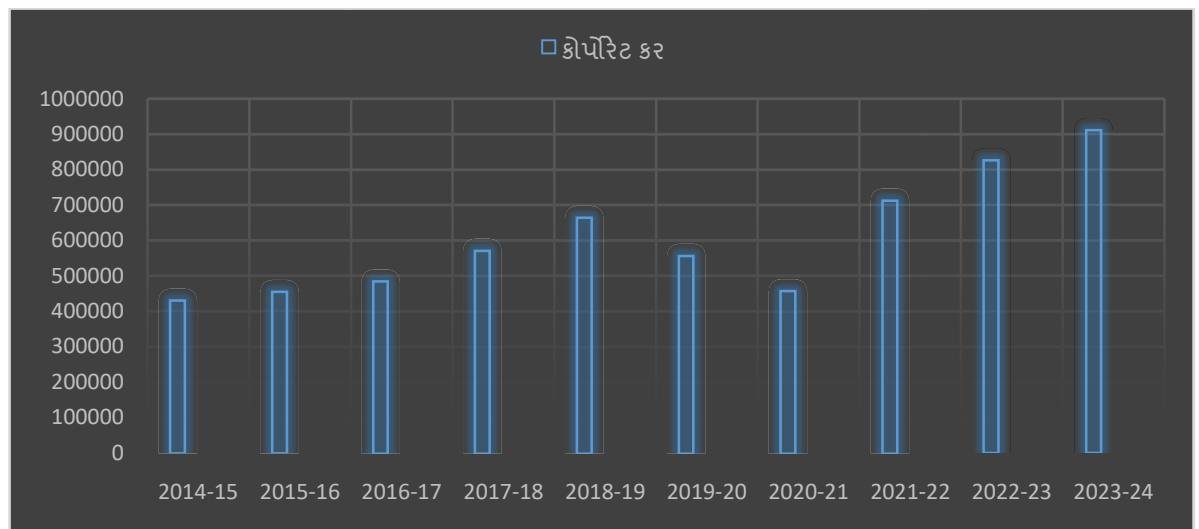
ઉપરોક્ત કોષ્ટકમાં વર્ષ 2014-15 થી 2023-24 સુધીની ભારતના પ્રત્યક્ષ કરની માહિતી દર્શાવવામાં આવી છે. જેમાં કોર્પોરેટ કર, વ્યક્તિગત આવક કર અને અન્ય પ્રત્યક્ષ કરની માહિતી દર્શાવવામાં આવી છે. આ આંકડાકીય માહિતીને આલેખનીમદદથી નીચે મુજબ વિશ્લેષણ કરવામાં આવ્યું છે.

પ્રત્યક્ષ કર (કરોડમાં)



ઉપરોક્ત આકૃતિમાં વર્ષ 2014-15 થી 2023-24 સુધીના ભારતના કુલ પ્રત્યક્ષ કરને દર્શાવવામાં આવ્યો છે. જેમાં જોય શકાય છે કે વર્ષ 2014-15 થી 2018-19 સુધી કુલ પ્રત્યક્ષ કરમાં સતત વધારો થયેલ જોવા મળે છે જે 1137718 કરોડ હતો. વર્ષ 2019-20 અને 2020-21 માં પ્રત્યક્ષ કરમાં ઘટાડો થયો હતો. જે ઘટીને 947176 કરોડ થઈ ગયો હતો. વર્ષ 2021-22 થી ફરી પ્રત્યક્ષ કરમાં વધારો થયો હતો ત્યાર બાદ 2023-24 સુધી સતત વધારો થયેલો જોવા મળે છે જે વધીને 1960166 કરોડ થઈ ગયો હતો.

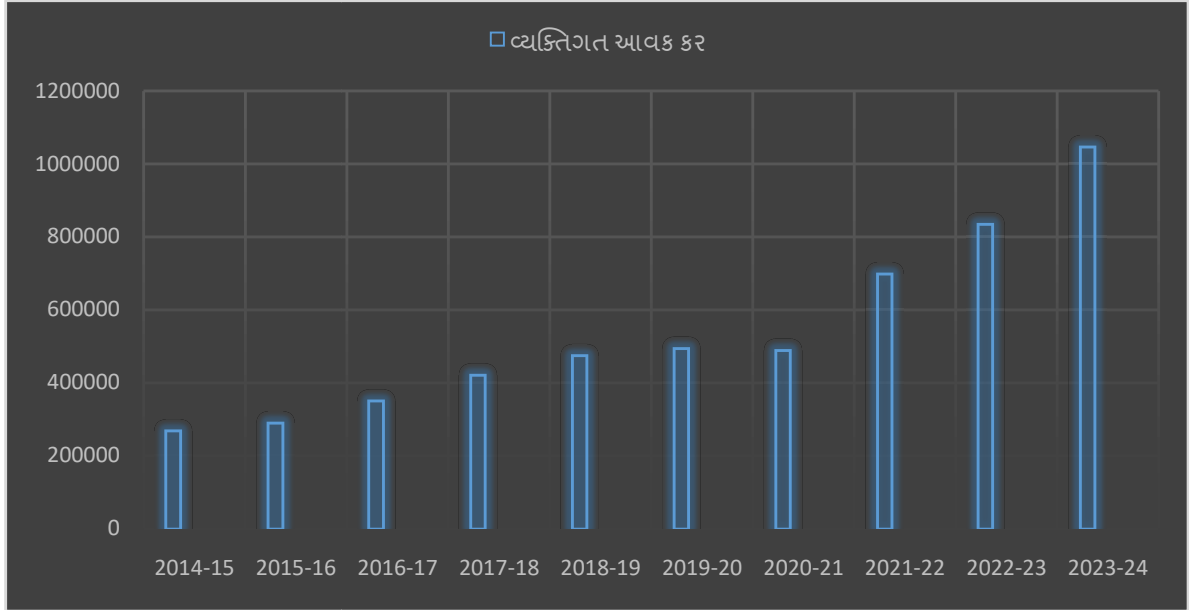
કોર્પોરેટ કર (કરોડમાં)





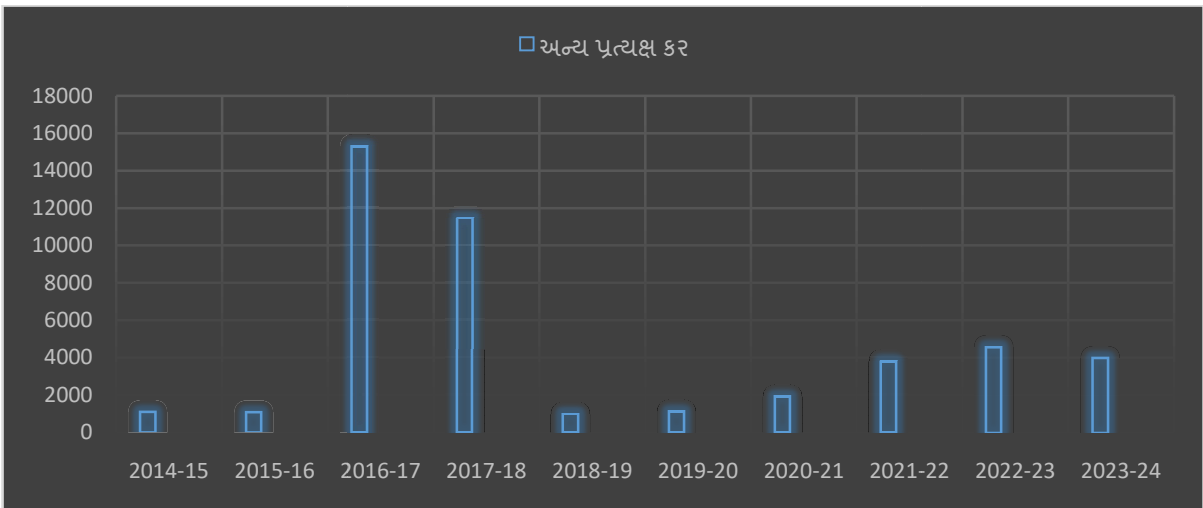
ઉપરોક્ત આકૃતિમાં વર્ષ 2014-15 થી 2023-24 સુધીનો કોર્પોરેટ કર દર્શાવવામાં આવ્યો છે જેમાં વર્ષ 2014-15 થી 2018-19 સુધી કોર્પોરેટ કરમાં સતત વધારો થયેલો જોવા મળે છે જે 663572 કરોડ હતો જે વર્ષ 2020-21 માં ઘટીને 457719 કરોડ થઈ ગયો હતો. 2021-22 થી 2023-24 સુધી સતત વધારો થયેલ જોવા મળે છે જે વધીને 911055 કરોડ થઈ ગયો.

વ્યક્તિગત આવક કર (કરોડમાં)



ઉપરોક્ત આકૃતિમાં વર્ષ 2014-15 થી 2023-24 સુધીનો વ્યક્તિગત આવક કર દર્શાવવામાં આવ્યો છે. વર્ષ 2014-15 થી 2019-20 સુધી વ્યક્તિગત આવક કરમાં સતત વધારો થયેલ જોવા મળે છે જે 492717 કરોડ હતો. વર્ષ 2020-21 માં વ્યક્તિગત આવક કરમાં ઘટાડો થયેલો જોવા મળે છે જે 487560 કરોડ હતો. 2021-22 માં વ્યક્તિગત આવક કર વધારો થયેલ જોવા મળે છે જે વધીને વર્ષ 2023-24 માં 1045139 કરોડ થયો હતો.

અન્ય પ્રત્યક્ષ કર (કરોડમાં)





ઉપરોક્ત આકૃતિમાં વર્ષ 2014-15 થી 2023-24 સુધીનો અન્ય પ્રત્યક્ષ કર દર્શાવવામાં આવ્યો છે. વર્ષ 2014-15 માં 1095 કરોડ હતો જે વર્ષ 2015-16 માં ઘટીને 1079 કરોડ થઈ ગયો. વર્ષ 2016-17 માં વધારો થયો હતો જે વધીને 15286 કરોડ થયો હતો. વર્ષ 2017-18 અને 2018-19 માં ઘટાડો થયો હતો જે ઘટીને 967 કરોડ થઈ ગયો હતો. વર્ષ 2019-20 થી 2022-23 સુધી ક્રમશઃ વધારો થયેલ જોવા મળે છે જે વધીને 4545 કરોડ થી ગયો હતો પણ વર્ષ 2023-24 માં તેમાં ઘટાડો થઈને 3972 કરોડ થઈ ગયો.

તારણો

પ્રસ્તુત અભ્યાસ પરથી તારણો નીકળે છે કે વર્ષ 2014-15 પછી પ્રત્યક્ષ કરમાં વધારો થયો હતો જેવર્ષ 2018-19 સુધી ક્રમશઃ વધારો થયો હતો પણ વર્ષ 2019-20 અને 2020-21 માં પ્રત્યક્ષ કરમાં ઘટાડો થયો હતો કારણ કે વર્ષ 2019 માં કોર્પોરેટ કરના દરમાં ઘટાડો કરવામાં આવ્યો હતો, વર્ષ 2019-20 માં અર્થતંત્રમાં મંદીની સ્થિતિ હતી. અને વર્ષ 2020 ની શરૂઆતમાં દેશમાં કોરોના મહામારીનું આગમન થયું. 2021 સુધી દેશમાં કોરોના મહામારીનું વાતાવરણ રહ્યું ત્યારબાદ વર્ષ 2021-22 માં સરકારના પ્રયાસો થકી અર્થતંત્ર ઊભું થયું અને વર્ષ 2021-22 થી પ્રત્યક્ષ કરમાં વધારો થયો.

સંદર્ભસૂચિ

- Bera, D., Bera, S. (2024) "A Comparative Study of Direct and Indirect Tax Revenue Collection and its Impact on GDP" IJCAMS, Peer Reviewed, Indexed Journal, ISSN 2456-3684, Vol. 9, No. 1
- Rani, R., Poonia, U. (2014) "Relative Contribution of Direct and Indirect Tax to Total Tax Revenue in India" CASIRJ, ISSN 2319-9202, Vol. 5, Issue 5
- Parihar, B., Parihar, A. (2024) "Trends and Implications: Analysis of Collection of Direct Tax From Financial Year 2017-18 to 2022-23" International Journal of Multidisciplinary Research and Explorer, eISSN 2833-7298, Vol. 4(1)



REFORMS IN DIRECT AND INDIRECT TAXATION

(પ્રત્યક્ષ અને પરોક્ષ કરવેરામાં સુધારા)

By

Solanki Jagdishbhai Bharatbhai

City C. U. Shah Commerce College, Ahmedabad, Gujarat

સારાંશ

સરકાર ચલાવવા અને રાજ્યની બાબતોનું સંચાલન કરવા માટે પૈસાની જરૂર પડે છે. તેથી સરકાર વ્યક્તિઓ અને કંપનીઓની આવક પર ઘણા સ્વરૂપોમાં કરવેરા લાદે છે. ભારતમાં કરવેરા પદ્ધતિ એવી છે કે કેન્દ્ર સરકાર અને રાજ્ય સરકારો દ્વારા કર વસૂલવામાં આવે છે. આ ઉપરાંત મ્યુનિસિપાલિટી અને સ્થાનિક સરકારો જેવા સ્થાનિક સત્તાવાળાઓ દ્વારા કેટલાક નાના કર પણ વસૂલવામાં આવે છે. હાલનાં નાણામંત્રીએ તેમની બજેટ રજૂઆતમાં પગારદાર વ્યક્તિઓ અને પેન્શનરો જેઓ નવો કર પસંદ કરે છે. તેમને ટેક્સમાં રાહત આપવાના હેતુથી ઘણા આકર્ષક લાભોની પણ જાહેરાત કરી હતી. આ સંશોધન પેપરનો ઉદ્દેશ્ય શાસન સરળ અને કાર્યક્ષમ પ્રત્યક્ષ અને પરોક્ષ કર પ્રણાલી પ્રત્યે સરકારની પ્રતિબદ્ધતાને ભાર મૂકતાં, કેન્દ્રીય બજેટ 2025-2026માં રજૂ કરવામાં આવેલ જોગવાઈઓ અને સુધારાઓ તથા પ્રત્યક્ષ અને પરોક્ષ કરની જરૂરિયાત, ખામીઓ અને નિવારણને રજૂ કરવા તરફ ધ્યાન દોરવાનો પ્રયાસ છે.

Keywords: પ્રત્યક્ષ અને પરોક્ષ કર, જરૂરિયાત, જોગવાઈઓ અને સુધારાઓ, ખામીઓ અને નિવારણ

પરીચય

કર એ વ્યક્તિઓ, વ્યવસાયો અથવા અન્ય સંસ્થાઓ પર આવક ઉત્પન્ન કરવા માટે સરકાર દ્વારા લાદવામાં આવતો ફરજિયાત નાણાકીય શુલ્ક અથવા ફી છે. આ આવકનો ઉપયોગ દેશના સમગ્ર વિકાસ અને કલ્યાણમાં સુધારો કરવાના હેતુથી જાહેર સેવાઓ, આધાર-માળખું અને વિવિધ સરકારી કાર્યક્રમોને ભંડોળ આપવા માટે કરવામાં આવે છે. કર ચૂકવવો એ એક આવશ્યક નાગરિક જવાબદારી છે, કારણ કે તે સરકારને આવશ્યક સેવાઓ પ્રદાન કરવામાં અને સમાજના વિવિધ વિભાગોને ઉન્નત કરવામાં મદદ કરે છે.

કરના પ્રકારોને વ્યાપકપણે મુખ્ય બે ભાગમાં વર્ગીકૃત કરી શકાય છે.

(1) પ્રત્યક્ષ કર. (2) પરોક્ષ કર.

1. પ્રત્યક્ષ કર

વ્યક્તિની આવક પર, વ્યક્તિ એ જ સીધો જ કરવેરા સરકારને ભરવો પડે છે તેને પ્રત્યક્ષ કરવેરા કહે છે. એટલે કે જે વ્યક્તિની આવક હોય તે જ વ્યક્તિના શિરે સરકાર દ્વારા નિશ્ચિત દરે અને નિશ્ચિત સમયે કરવેરા ભરવાની જવાબદારી હોય છે તેને પ્રત્યક્ષ કરવેરા કહે છે.

દા.ત. પગારની આવક, મકાન-મિલકતની સંપત્તિમાંથી થતી આવક, મૂડી નફો, ધંધા કે વ્યવસાયમાંથી ઉદભવતો લાભ અને નફો, અન્ય સ્ત્રોતમાંથી થતી આવક પર ભરવાનો થતો કરવેરા.

પ્રત્યક્ષ કરવેરાનો મોટો ભાર ગરીબ વર્ગ પર બહુ જ ઓછો અને ધનિક લોકો કે જે તે વહન કરવા માટે સક્ષમ છે, તેમના પર વધુ આવે છે. આ પ્રકારના કરવેરા સરકારનું એક એવું મહત્ત્વ સાધન છે કે જેની મદદથી આવક અને સંપત્તિની અસમાનતા ઘટાડી શકાય છે. જો પ્રત્યક્ષ કરવેરાનું માળખું વિકાસલક્ષી હોય તો તેને પરિણામે આવકની પરિવર્તનશીલતાનો લાભ મળે છે. તેમજ રાષ્ટ્રીય આવકમાં પણ સારો એવો વધારો કરી શકાય છે.



2. પરીક્ષ કર

જે કરવેરા વ્યક્તિની આવક પર નહીં પરંતુ વસ્તુના ઉત્પાદનકાર કે વપરાશકાર પાસેથી અથવા તો સેવાના વપરાશકાર પાસેથી ઉઘરાવવામાં આવે છે, તેવા કરવેરા પરીક્ષ કરવેરા ગણવામાં આવે છે. ટૂંકમાં કહીએ તો, જે કરવેરા જેના પર નાખવામાં આવ્યા હોય તેનો ભાર બીજી વ્યક્તિ પર પસાર થઈ શકે તેને પરીક્ષ કરવેરા તરીકે ઓળખવામાં આવે છે. હાલમાં, પરીક્ષ કરવેરાના સૌથી મોટા સ્ત્રોત તરીકે ભારતમાં વસ્તુ અને સેવા કર (GST) અમલમાં છે. જેને 1 જુલાઈ, 2017 ના રોજ "એક દેશ, એક કર, એક બજાર" જેવા સૂત્ર સાથે સમગ્ર દેશમાં GST લાગુ કરવામાં આવ્યો.

- GSTને ચાર ભાગમાં વર્ગીકૃત કરી શકાય છે.
- CGST (કેન્દ્રીય માલ અને સેવા કર):
કેન્દ્ર સરકાર દ્વારા વસુલવામાં આવતો કર, જે દેશના અંદર થતી વેપાર ક્રિયાઓ પર લાગુ થાય છે.
- SGST (રાજ્ય માલ અને સેવા કર):
રાજ્ય સરકાર દ્વારા વસુલવામાં આવતો કર, જે એ જ રાજ્યમાં થતા વેપાર માટે લાગુ થાય છે. (જેમ કે, ગુજરાતમાં થયેલા વેપાર માટે ગુજરાત સરકાર SGST વસૂલે છે.)
- IGST (સંકલિતમાલ અને સેવા કર):
બે અલગ અલગ રાજ્યો (આંતરરાજ્ય) વચ્ચેના વેપાર અથવા આયાત-નિકાસ માટે લાગુ કર, જે કેન્દ્ર સરકાર દ્વારા વસુલવામાં આવે છે.
- UTGST (કેન્દ્રશાસિત પ્રદેશના માલ અને સેવા કર):
કેન્દ્રીય શાસિત પ્રદેશોમાં જેમ કે દમણ અને દીવ, અંડામાન અને નિકોબાર જેવા પ્રદેશોમાં થતી વેપાર ક્રિયાઓ માટે વસુલવામાં આવતો કર છે. આ ઉપરાંત, આબકારી જકાત, સીમા શુલ્ક, સ્ટેમ્પ ડ્યૂટી કર વગેરે જેવા કરવેરાનો પણ પરીક્ષ કરવેરામાં સમાવેશ થાય છે.
- જે વસ્તુઓ અને સેવાઓનો વ્યવહાર થાય છે, તેમાં પરીક્ષ કરવેરાની રકમ સામેલ હોવાથી તેના ભારનો બહુ ખ્યાલ આવતો નથી. જો પરીક્ષ કરવેરાનો વહીવટ અને નિયમન યોગ્ય રીતે કરવામાં આવે તો કરચોરી ઘટવાની વધુ તકો રહેલી છે. પરીક્ષ કરવેરા સરકારનું એક એવું સાધન છે જેને પરિણામે અર્થતંત્રની ઉત્પાદન અને રોકાણની પ્રવૃત્તિને દેશ હિતમાં ઉપયોગમાં લઈ શકાય છે.

પ્રત્યક્ષ અને પરીક્ષ કરવેરાનો મુખ્ય તફાવત

વિશેષતા	પ્રત્યક્ષ કર	પરીક્ષ કર
ચુકવનાર	વ્યક્તિ/કંપની.	ગ્રાહક (ઉત્પાદન કે આપવામાં આવતી સેવાદ્વારા વસૂલાય છે)
ભાર	કરદાતા પોતે ભરતો હોય છે.	વપરાશકર્તા (ગ્રાહક) દ્વારા ચૂકવાય છે.
સરકાર માટે	સ્થિર આવક પર આધાર રાખે છે.	ખર્ચ અને વપરાશ વધે ત્યારે વધુ આવક.
સરળતા	વધુ નીતિગત પ્રક્રિયા અને ઓડિટિંગ.	સરળ અને વ્યાપક આવક સ્ત્રોત.

પ્રત્યક્ષ અને પરીક્ષ કરના ઉદાહરણો અને સંક્ષિપ્ત સ્પષ્ટીકરણ

પ્રત્યક્ષ કર	
ઉદાહરણો	સંક્ષિપ્ત સ્પષ્ટીકરણ
આવકવેરો	કોઈ વ્યક્તિની અથવા વ્યવસાયની આવક અથવા નફા પર વસૂલવામાં આવતો કર.
કોર્પોરેટ કર	કોર્પોરેશનના નફા પર વસૂલવામાં આવતો કર.
મૂડી લાભ કર	જથ્થો, સંપત્તિ અથવા અન્ય રોકાણ જેવી મિલકતના વેચાણથી કમાયેલ નફા પરનો કર.

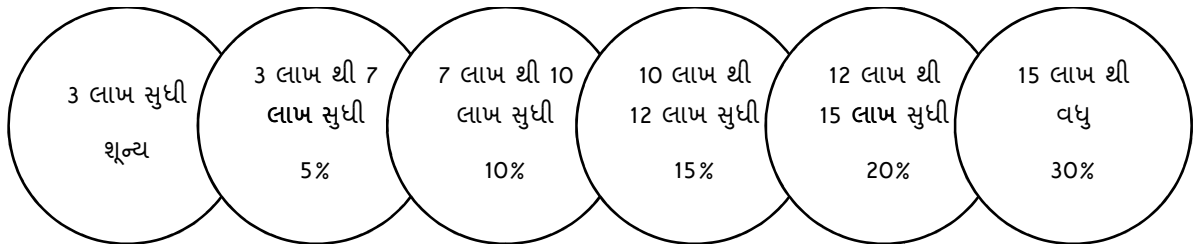


સંપત્તિ કર) વ્યક્તિની માલિકી(કોઈ વ્યક્તિની માલિકીની વ્યક્તિગત સંપત્તિઓના કુલ મૂલ્ય પર વસૂલવામાં આવતો કર.
વારસાગત કર	વારસાગત દ્વારા સંપત્તિના ફેરબદલી પર વસૂલવામાં આવતો કર.
પ્રોપર્ટી કર	રિયલ એસ્ટેટ અથવા અન્ય સંપત્તિના મૂલ્ય પર વસૂલવામાં આવતો કર.
વ્યવસાયિક કર	વકીલો, ડોક્ટરો અને આર્કિટેક્ટ જેવા વ્યવસાયમાંથી કમાણી કરનાર વ્યક્તિઓ પર વસૂલવામાં આવતો કર.
પરોક્ષ કર	
ઉદાહરણો	સંક્ષિપ્ત સ્પષ્ટીકરણ
માલ અને સેવા કર (GST)	માલ અને સેવાઓના પુરવઠા પર વસૂલવામાં આવતો કર; ભારતમાં વેટ, એક્સાઇઝ ડ્યુટી અને સેવા કરને બદલે છે.
વેલ્યુ એડેડ ટેક્સ (VAT)	ઉત્પાદન અને વિતરણના દરેક તબક્કે માલમાં ઉમેરેલા મૂલ્ય પર વસૂલવામાં આવતો કર.
એક્સાઇઝ ડ્યુટી	વિશિષ્ટ માલના ઉત્પાદન અથવા ઉત્પાદન પર વસૂલવામાં આવતો કર.
કસ્ટમ ડ્યુટી	માલના આયાત અને નિકાસ પર વસૂલવામાં આવતો કર.
સર્વિસ ટેક્સ	સેવાઓની જોગવાઈ પર વસૂલવામાં આવતો કર, હવે ભારતમાં GST હેઠળ રહે છે.
સિક્યોરિટીઝ ટ્રાન્ઝેક્શન ટેક્સ STT	શેર બજારમાં પ્રતિભૂતિઓની ખરીદી અને વેચાણ પર વસૂલવામાં આવતો કર.
મનોરંજન કર	મૂવી ટિકિટ, મનોરંજન પાર્ક અને લાઇવ ઇવેન્ટ જેવી મનોરંજન પ્રવૃત્તિઓ પર વસૂલવામાં આવતો કર.
સ્ટેમ્પ ડ્યુટી	સંપત્તિની ફેરબદલી, શેર સર્ટિફિકેટ અને લોન એગ્રીમેન્ટ જેવા કાનૂની કરાર પર વસૂલવામાં આવતા ટેક્સ.
રોડ ટેક્સ	જાહેર રસ્તાઓનો ઉપયોગ કરવા માટે વાહનો પર વસૂલવામાં આવતો કર.

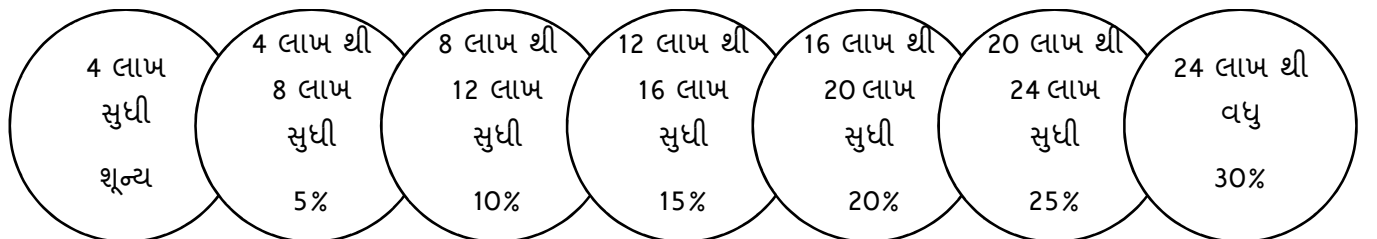
❖ પ્રત્યક્ષ અને પરોક્ષ કરવેરા (વર્ષ : 2025-2026) માટે કરવામાં આવેલ સુધારા

ભારતના કેન્દ્રીય બજેટ 2025-26માં પ્રત્યક્ષ કર સંબંધિત કેટલાક મહત્વપૂર્ણ સુધારાઓ કરવામાં આવ્યા છે, જેનો હેતુ ટેક્સ પ્રણાલીને સરળ બનાવવો અને કરદાતાઓને રાહત આપવાનો છે.

• આવકવેરાસ્લેબમાં ફેરફાર:



• વર્ષ 2024-25 માટેનો(જુનો) સ્લેબ :



**• વર્ષ 2025-26 માટે (નવો) સ્લેબ :**

નવા ટેક્સ પ્રણાલીમાં આવકવેરા સ્લેબ્સમાં ફેરફાર કરવામાં આવ્યા છે, જેનાથી મધ્યમ વર્ગના લોકો માટે ટેક્સનો બોજ ઓછો થશે.

➤ માનક કપાતમાં વધારો:

પગારદારો માટે માનક કપાત) સ્ટાન્ડર્ડ ડિડક્શન(વધારીને 75,000 કરવામાં આવ્યું છે, જેનાથી તેમની કરપાત આવકમાં ઘટાડો થશે.

• અનુમાનિત કરવેરા યોજનાની મર્યાદામાં વધારો:

નાના અને મધ્યમ સાહસો માટે અનુમાનિત કરવેરા યોજનાની મર્યાદા વધારીને 3 કરોડ કરવામાં આવી છે, જેનાથી નાના ઉદ્યોગોને કર ભરવામાં સરળતા મળશે.

• આભાસી ડિજિટલ મિલકત પર સ્પષ્ટતા:

આભાસી ચલણ અને NFT)નોન-ફંગીબલ ટોકન(જેવા આભાસી ડિજિટલ મિલકતને ટેક્સપાત્ર સંપત્તિ તરીકે વર્ગીકૃત કરવામાં આવ્યા છે, જેનાથી તેમના કરવેરા પર સ્પષ્ટતા મળશે.

• TDS અને TCS માં સુધારો:

વૃદ્ધ નાગરિકો માટે વ્યાજ પર TDS મર્યાદા વધારીને 1 લાખ કરવામાં આવી છે. ભાડા માટે TDS મર્યાદા વધારીને 6 લાખ કરવામાં આવી છે, જેનાથી નાના કરદાતાઓને રાહત મળશે.

• અપડેટ્ડ રિટર્ન ફાઇલિંગની સમય મર્યાદામાં વધારો:

અપડેટ્ડ આવકવેરા રિટર્ન ફાઇલ કરવાની સમય મર્યાદા વધારીને ચાર વર્ષ કરવામાં આવી છે, જેનાથી કરદાતાઓને ભૂલો સુધારવામાં વધુ સમય મળશે.

આ સુધારાઓનો હેતુ ટેક્સ પ્રણાલીને વધુ સરળ અને પારદર્શક બનાવવાનો છે, જેથી કરદાતાઓને રાહત મળે અને સ્વૈચ્છિક પાલન પ્રોત્સાહિત થાય.

ભારતના પરોક્ષ કર સંબંધિત કરવામાં આવેલ કેટલાક મહત્વપૂર્ણ સુધારાઓ:**1) કસ્ટમ્સ ટેરિફ માળખાનું તર્કસંગતકરણ:**

- સાત ટેરિફ દરો દૂર કરવામાં આવ્યા છે, જેનાથી હવે 'શૂન્ય' દર સહિત માત્ર આઠ ટેરિફ દર બાકી રહેશે.
- કેટલીક વસ્તુઓ પર અસરકારક ડ્યુટી જાળવવા માટે યોગ્ય સેસ લાગુ કરવામાં આવ્યા છે.
- એક કરતાં વધુ સેસ અથવા સરચાર્જ દૂર કરવા માટે, 82 ટેરિફ લાઇન પર સમાજ કલ્યાણ સરચાર્જને મુક્તિ આપવામાં આવી છે.

2) દવાઓની આયાત પર રાહત:

- 36 જીવનરક્ષક દવાઓ અને ઔષધિઓને બેઝિક કસ્ટમ્સ ડ્યુટી (BCD) માંથી સંપૂર્ણ મુક્તિ આપવામાં આવી છે.
- 6 જીવનરક્ષક દવાઓ પર 5%ની છૂટછાટવાળી કસ્ટમ્સ ડ્યુટી લાગુ કરવામાં આવી છે.
- ફાર્માસ્યુટિકલ કંપનીઓના પેશન્ટ આસિસ્ટન્સ પ્રોગ્રામ હેઠળ નિર્દિષ્ટ દવાઓને BCD માંથી સંપૂર્ણ મુક્તિ આપવામાં આવી છે; 13 નવા કાર્યક્રમો સાથે વધુ 37 દવાઓ ઉમેરવામાં આવી છે.

3) સ્થાનિક ઉત્પાદન અને મૂલ્ય સંવર્ધનને પ્રોત્સાહન:**→ મહત્વપૂર્ણ ખનિજ:**

કોબાલ્ટ પાવડર, લિથિયમ-આયન બેટરીનો ભંગાર, લીડ, ઝિંક અને 12 વધુ મહત્વપૂર્ણ ખનિજોને BCDમાંથી સંપૂર્ણ મુક્તિ આપવામાં આવી છે.



→ કાપડ:

શટલ-લેસ લૂમ્સના વધુ બે પ્રકારને કાપડ મશીનરીમાં સંપૂર્ણ મુક્તિ આપવામાં આવી છે. ગૂથેલા કાપડ પર BCDનો દર સુધારીને "20% અથવા 115 પ્રતિ કિલો, જે વધુ હોય તે" કરવામાં આવ્યો છે.

→ ઇલેક્ટ્રોનિક્સ:

ઇન્ટરેક્ટિવ ફ્લેટ પેનલ ડિસ્પ્લે (IFPD) પર BCD 10% થી વધારીને 20% કરવામાં આવી છે. ઓપન સેલ અને અન્ય ઘટકો પર BCD ઘટાડીને 5% કરવામાં આવી છે.

→ લિથિયમ-આયન બેટરી:

EV બેટરી અને મોબાઇલ ફોન બેટરીના ઉત્પાદન માટે જરૂરી મૂડીગત ચીજવસ્તુઓને BCDમાંથી મુક્તિ આપવામાં આવી છે.

ભારતમાં 2025-26 ના નાણાકીય વર્ષ માટે, પરોક્ષ કર સુધારાઓનું પ્રાથમિક ધ્યાન ગૂડ્ઝ એન્ડ સર્વિસ ટેક્સ (GST) સિસ્ટમને વધુ સુવ્યવસ્થિત કરવા પર જણાય છે, જેમાં સંભવિત દર ગોઠવણ, અનુપાલન પ્રક્રિયાઓને સરળ બનાવવા અને સ્થાનિક ઉત્પાદનને વેગ આપવા માટે ક્ષેત્ર-વિશિષ્ટ કરવેરા પગલાંની રજૂઆતનો સમાવેશ થાય છે, જ્યારે કરવેરાના ડેટાને ડિજિટલીકરણ અને ડેટાના સંગ્રહને પ્રોત્સાહન આપવાનું લક્ષ્ય છે.

- આમ વર્ષ 2004 માં કરમુક્ત આવક ફક્ત એક લાખ રૂપિયા હતી. વર્ષ 2014 સુધીમાં કરમુક્ત આવક વધીને બે લાખ થઈ ગઈ હતી. એટલે કે 10વર્ષમાં 100 ટકા બદલાવ થયો હતો. પણ હવે વર્ષ 2025માં કરમુક્ત આવક 12 લાખ રૂપિયા કરી દેવામાં આવી છે. મતલબ, 11 વર્ષમાં 600 ટકાનો બદલાવ આવ્યો અને હવે 6 કરોડ કરતાં વધારે ભારતીય કરમુક્ત (ટેક્સ-ફ્રી) બકેટમાં આવી ગયા છે.
- કરદાતાને મોટી રાહત આપતાં ટેક્સ રોબને 7લાખ રૂપિયાથી વધારીને 12 લાખ કરી દીધો છે. પગારદાર કર્મચારીઓ માટે 75 હજાર રૂપિયાના પ્રમાણભૂત મંદન સાથે કુલ કર મુક્તિ 12,75 લાખ રૂપિયા થઈ જાય છે.
- ટેક્સ રિટર્ન ફાઇલ કરવાની મુક્તિને ઢાલની બે વર્ષની સીમાથી વધારીને ચાર વર્ષ કરવાનો પ્રસ્તાવ કર્યો છે. આ કારણે જે લોકોએ રિટર્ન ફાઇલ કરવાનું ઘણા વખતથી બાકી હતો તેમને રાહત થશે અને રિટર્ન ભરનારાની સંખ્યા વધશે .
- જાતે ખરીદેલા ઘર (સોલ્ડ ઓક્યુપાઇડ હાઉસ) પર કરવેરા રાહતોની શરતોમાં ઢીલ મુકી છે. આનો અર્થ એ કે, જો વ્યક્તિ પાસે બે ઘર હોય તો એ વ્યક્તિ પોતાની બંને સંપત્તિ પર ટેક્સ લાભનો દાવો કરી શકે છે. આ પહેલાં જાતે ખરીદેલા એક ઘર પર જ ટેક્સ રાહત મળતી હતી. આમ આડકતરો ફાયદો થશે.
- વરિષ્ઠ નાગરિકોને હવે વધારે ટેક્સ કપાતનો લાભ મળશે. વ્યાજની આવક પરની મર્યાદા 50 હજાર રૂપિયાથી બમણી કરીને 1 લાખ રૂપિયા કરી દીધી છે. TDSની મર્યાદા વધારતા ભાડાંની આવક પર જીવતા સિનિયર સિટીઝનને ફાયદો થશે.

પ્રત્યક્ષ અને પરોક્ષ કરવેરામાં સુધારા કરવાની જરૂરિયાત :

1) કર કાયદાનું સરળીકરણ માટે:

- વર્ષોથી, ભારત હંમેશા અત્યંત જટિલ પરોક્ષ કર પ્રણાલી ધરાવે છે. આ કર કેન્દ્ર અને રાજ્ય સરકારો બંને દ્વારા લાદવામાં આવ્યા હતા, જેણે વ્યવસાયો અને નિયમિત લોકો બંને માટે કર નિયમોને સમજવામાં મૂઝવણભરી અને પડકારજનક બનાવી હતી.
- કરવેરા કાયદાનું સરળીકરણ અને ઘટાડો કરદાતાઓ પરનો બોજ ઘટાડવામાં અને કર પ્રણાલીની કાર્યક્ષમતામાં સુધારો કરવામાં મદદ કરી શકે છે.

2) બિનજરૂરી કરમુક્તિ નાબૂદ:

- બિનજરૂરી કર મુક્તિઓ શોધવા અને દૂર કરવી મહત્વપૂર્ણ છે. કારણ કે તે સરકારની આવક ઘટાડે છે.



- આ બાકાત, જે વારંવાર અમુક વ્યવસાયો અથવા વ્યક્તિઓની તરફેણ કરે છે, તે બજારોને વિકૃત કરી શકે છે, અમુક પક્ષોને અન્યાયી લાભો પ્રદાન કરી શકે છે અને આર્થિક પ્રગતિમાં અવરોધ લાવી શકે છે.
- સરકાર તેના કર આધારને વિસ્તારી શકે છે અને અમુક છૂટને નાબૂદ કરીને મહેસૂલ સંગ્રહને વેગ આપી શકે છે.

3) કર જાગૃતિમાં વધારો:

- આવકની વસૂલાત વધારવા અને કરચોરી ઘટાડવા માટે કર જાગૃતિમાં સુધારો કરવો મહત્વપૂર્ણ છે.
- આ કારણોસર, સરકારે ટેક્સ નિયમોને વધુ સરળ બનાવવા જોઈએ, અમલીકરણ મિકેનિઝમને વધારવું જોઈએ.
- શિક્ષણ અને જાગૃકતા કાર્યક્રમો દ્વારા સ્વૈચ્છિક અનુપાલનને પ્રોત્સાહન આપો. જ્યાં લોકો તેમની ટેક્સ ફરજો શું છે તે જાણી શકે.

4) આધુનિકીકરણ:

- આપણે કરવેરા ચૂકવીને પણ બાકીના વિશ્વની આર્થિક સ્થિતિ, ટેકનિકલ વિકાસ અને સમયસર આગળ વધવા માટે, આપણે આપણા જીવનના તમામ પાસાઓમાં ટેકનોલોજીનો ઉપયોગ કરવો જોઈએ. સરકાર દ્વારા ડિજિટલ ટેક્સ સોલ્યુશન્સ લાગુ કરવાને કારણે હવે ઓનલાઈન બિલ જનરેશન અને ટેક્સ ચૂકવણી પણ શક્ય છે જે પરોક્ષ કરને ખૂબ જ પારદર્શક અને કાર્યક્ષમ બનાવે છે. આધુનિકીકરણ કર પ્રણાલીને સુવ્યવસ્થિત કરવામાં, વહીવટી ખર્ચ ઘટાડવા અને આવકની વસૂલાત વધારવામાં પણ મદદ કરી શકે છે.

5) GST પેમેન્ટ પોર્ટલ:

- કરદાતાઓને GST રિટર્ન ફાઇલ કરવા, GST ચૂકવવા, તેમના ટેક્સ ક્રેડિટ લેજરની તપાસ કરવા અને તેમની ચુકવણી અને રિટર્ન બંનેની પ્રગતિ પર નજર રાખવાની મંજૂરી આપે છે.
- GST કેલ્ક્યુલેટર અને GST દરો શોધનાર એ ફક્ત બે સાધનો અને સંસાધનો છે જે પોર્ટલ કરદાતાઓને GST કાયદાઓનું પાલન કરવામાં સહાયતા પ્રદાન કરે છે.

6) આર્થિક વૃદ્ધિ:

- માલસામાન અને સેવાઓની કિંમતમાં વધારો કરીને, પરોક્ષ કર માંગને મર્યાદિત કરી શકે છે. અને કિંમતોને સ્થિર કરી શકે છે. જ્યારે કુગાવાના નિયંત્રણમાં પણ મદદ કરે છે. વધુમાં, તે રોકાણોને પ્રોત્સાહન આપે છે, જે આખરે અર્થતંત્રને સ્થિર કરવામાં અને તેને પ્રોત્સાહન આપવામાં મદદ કરે છે.

7) સામાજિક કારણ:

- આરોગ્ય અથવા પર્યાવરણને નુકસાન પહોંચાડતી ચીજવસ્તુઓ પરના કરમાં વધારો એ એક રીત છે. જે પરોક્ષ કરનો ઉપયોગ જવાબદાર વપરાશને પ્રોત્સાહન આપવા માટે થઈ શકે છે.
- દાખલા તરીકે, વધુ તમાકુ ઉત્પાદન કર ગ્રાહકોને ધૂમ્રપાન કરતા અટકાવી શકે છે

પ્રત્યક્ષ અને પરોક્ષ કરવેરામાં જોવા મળતી ખામીઓ અને નિવારણ :

1) કરચોરી:

- લોકો તેમની સાચી આવક છુપાવે છે, જેના કારણે સરકારને ઓછું ટેક્સ મળે છે.
- કરચોરી રોકવા માટે ડિજિટલ FAS (ફેસલેસ એસેસમેન્ટ સિસ્ટમ)થી ઓડિટ કરવામાં આવે.
- આવકવેરા રીટર્ન (ITR) ભરીને ડિજિટલ ટ્રાન્ઝેક્શન પર નજર રાખવામાં આવે.
- બેંકિંગ વ્યવહારો પર દેખરેખ માટે PAN-આધાર લિંકિંગ કરાવવામાં આવે.

2) ટેક્સ પદ્ધતિની જટિલતા :

- ટેક્સ સ્લેબ્સ અને નિયમોમાં વારંવાર ફેરફાર કરદાતાઓ માટે અશક્યકારક છે.
- સરળ ટેક્સ પદ્ધતિ (New Tax Regime) – ઓછા દર અને સ્લેબ્સ.



- સરળ ટેક્સ રિટર્ન પ્રક્રિયા માટે ઈ-ફાઇલિંગ પોર્ટલનો ઉપયોગ થાય.
- ઓછી આવક ધરાવતા લોકો માટે વધુ રાહતો અંગે મહત્વપૂર્ણ કરમુક્તિઓ આપવામાં આવે.

3) ઓછી કરદાતા સંખ્યા :

- ભારત જેવી મોટી વસ્તીમાં વસ્તીનાં પ્રમાણમાં ઓછા લોકો કરવેરા ભરે છે.
- જૂના કર વિવાદો ઉકેલવા વિવાદ સે વિશ્વાસ યોજના.
- લોકોમાં કરવેરા અંગે જાગૃતિ લાવવા ટેક્સ સક્ષરતા અભિયાન કરવામાં આવે.
- ટેક્સ દરમાં ઘટાડો કરીવધુ લોકોને કરવેરા ચૂકવવા પ્રોત્સાહિત કરવામાં આવે.

4) અપ્રત્યક્ષતા :

- GST અને અન્ય પરોક્ષ કર ગરીબ-ધનિક બધાને સમાન અસર કરે છે.
- જીવનજરૂરી વસ્તુઓ (ખાદ્યપદાર્થો, દવાઓ) પર ઓછો અથવા શૂન્ય GST દર.
- બહુ-સ્તરીય GST માળખું નક્કી કરીભિન્ન-ભિન્ન આવશ્યકતાઓ માટે અલગ કરદરો રાખવામાં આવે.

5) રોકડ વ્યવહાર :

- ઘણા વેપારીઓ બિલ વગર રોકડમાં વેચાણ કરીને GST બચાવે છે.
- 50 લાખથી વધુ વેચાણ પર ઈ-બિલ પ્રક્રિયા દ્વારા ઈ-બિલ (ઇન્વોઇસ) ફરજિયાત કરવામાં આવે.
- એક રાજ્યમાંથી બીજામાં માલ મોકલતી વખતે ઈ-વે બિલ પ્રક્રિયા ઈ-વે બિલ જરૂરી કરવામાં આવે.
- ટેકનોલોજી આધારિત તપાસ કરવામાં આવે જેમાં GST વિભાગની ચકાસણી અને રેન્ડમ ઓડિટકરવામાં આવે.

6) ઉચ્ચ કરદરો અને ખર્ચમાં વધારો :

- ઉદ્યોગો અને વેપારીઓ માટે GST અને અન્ય પરોક્ષ કરોના કારણે ઉત્પાદન ખર્ચ વધી જાય છે.
- ઉદ્યોગોને ચૂકવેલા GST પર ક્રેડિટ માટે ટેક્સ ક્રેડિટ સિસ્ટમ (ITC).
- સુક્ષ્મ-લઘુ-મધ્યમ ઉદ્યોગો (MSME) માટે રાહતો અંગેનાની કંપનીઓ માટે ઓછા દર અને સરળ પ્રક્રિયા.
- નિકાસકારો અને નાની સંસ્થાઓ માટે ઝડપથી ટેક્સ રિફંડ આપવા રિફંડ સિસ્ટમનો ઉપયોગ કરવામાં આવે.

7) ટેકનોલોજી દ્વારા સુધારા :

- E-Filing અને E-Assessment જેવીડિજિટલ ટેક્સ પ્રણાલી.
- કરચોરી અટકાવવા PAN-આધાર લિંકિંગ.
- વ્યવહારો પર નજર રાખવા અને પારદર્શકતા માટે GST પોર્ટલ.

ભારતના આર્થિક વિકાસ માટે ટેક્સ પ્રણાલીની ખામીઓ દૂર કરવી અનિવાર્ય બની ગઈ છે. ઓછી કરપત્રદારોની સંખ્યા, ટેક્સ ચોરી, જટિલ ટેક્સ માળખું અને અસમાન કરવેરાના ભારને પહોંચી વળવા માટે નીતિનિર્માતાઓએ સઘન પ્રયત્નો કરવાની જરૂર છે. ટેક્સ પ્રણાલીને વધુ સરળ, પારદર્શક અને સમાન બનાવવાથી નાગરિકોમાં કર ચૂકવવા પ્રત્યેની નૈતિક જવાબદારી વિકસાવશે, સાથે સાથે સરકારના આવક સ્ત્રોતમાં વધારો થશે.

નિષ્કર્ષ

ભારતમાં, કર વહીવટની પ્રક્રિયા ખૂબ જ બોજારૂપ રહી છે અને તેના કારણે કરવેરાનું નબળું પાલન તેમજ આવા પાલનની ઊંચી કિંમત થઈ છે. સરકાર કરની વસૂલાત માટે જંગી ખર્ચ કરી રહી છે અને વસૂલાત પર થતા ખર્ચની રકમ દર વર્ષે વધતી જાય છે. તેથી, કરવેરા અમલીકરણની પ્રક્રિયાને વધુ સરળ બનાવવાની જરૂર છે. રાષ્ટ્રની આવકમાં યોગદાન આપીને, કરદાતાઓ સમાજના દરેક વિભાગના ઉત્થાનને ટેકો આપવામાં મદદ કરે છે અને સરકારને સંપૂર્ણ દેશમાં વધુ સારી રીતે આવશ્યક સેવાઓ અને જોગવાઈઓ પ્રદાન કરવામાં સક્ષમ બનાવે છે. આ માટે માહિતી આધારિત કર વહીવટ માટે, અને કરદાતાઓને શક્ય હોય ત્યાં સુધી કેશલેસ વ્યવહારો કરવા પ્રોત્સાહિત કરો. આપગલાં ભારતમાં કરની વસૂલાતની ઊંચી કિંમતને ઘટાડશે એટલું જ નહીં પરંતુ તેમાં કર અનુપાલન અને સરકાર માટે આવકમાં વધારો પણ કરશે. કર પ્રણાલીમાં સતત



સુધારાઓથી ભારતની આર્થિક વૃદ્ધિમાં વધારો થશે, અને વૈશ્વિક સ્તરે દેશની વિશ્વસનીયતા પણ વધશે. તેથી, ટેક્સ પ્રણાલીની ખામીઓ દૂર કરવાનો પ્રયાસ માત્ર આજની જરૂરિયાત નથી, પરંતુ ભવિષ્ય માટેનો આધાર છે.

સંદર્ભ સૂચિ

- www.incometax.gov.in
www.gst.gov.in
www.indiabudget.gov.in
<https://byjus.com/free-ias-prep/taxation-india>
<https://static.pib.gov.in/WriteReadData/specificdocs/documents/2024/jul/doc2024726355001.pdf>
<https://www.iifl.com/gu/blogs/business-loan/what-is-gst-number>
https://www.indiabudget.gov.in/doc/bspeech/bs2024_25.pdf
https://www.indiabudget.gov.in/doc/budget_speech.pdf
<https://www.5paisa.com/gujarati/stock-market-guide/tax/types-of-taxes>
https://forumias.com/blog/indirect-tax-reforms/#Indirect_Tax_Reforms_Need
<https://baou.edu.in/assets/pdf/BCTAXN205.pdf>
<https://www.angelone.in/knowledge-center/income-tax/what-is-tax-gujarati>
<https://www.gujaratsamachar.com/news/national/economic-growth-rate-estimated-to-be-6-3-6-8-percent-in-the-financial-year-2025-26>
<https://www.india-briefing.com/news/indias-union-budget-2025-26-highlights-reforms-to-drive-economic-growth-manufacturing-consumption-36011.html>
https://www.ey.com/en_in/technical/alerts-hub/2025/02/budget-2025-consolidated-tax-and-policy-alerts

**DIGITAL TRANSFORMATION IN ACCOUNTING –DATA ANALYTICS AND TECHNOLOGICAL ADVANCEMENT**

By

Dr. Mukesh Bavaliya

Assistant professor & HoD (Accountancy)

Government Arts Commerce & Science College, Patdi.

Abstract

Technology is an assets for humanity as it enhances productivity,generates morewealth and accelerates global economic growth when it is aptly combined with the appropriatepublic policy measures. In order to maximize the benefits of technological advancement in this the ‘Techade’-decade of technology, closing the digital divide is paramount importance.

The new education Policy 2020 proposes to set up a National Educational Technology Forum (NETF) to serve as platform to better the ideaprocessing , improve learning, assessment , Planning and administration. The Policy aims to see that technology is appropriately integrated into all level of education for: improving teaching , learning and evaluation processes supporting the preparation of teachers and their Continuous professional development : Enhancing educational access to disadvantages groups; and Streamlining educational Planning,Administration and management .

Digital transformation in accounting, driven by data analytics and technological advancements, is reshaping traditional financial practices. Emerging technologies such as artificial intelligence (AI), blockchain,data analytics cloud computing, and robotic process automation (RPA) have revolutionized data processing, financial reporting, and decision-making. Data analytics enables accountants to gain deeper insights, enhance forecasting accuracy, and provide strategic business advice beyond routine bookkeeping.This paper explores the impact of digital transformation on accounting, highlighting its benefits, challenges, and future implications.

Key words: AI- Artificial Intelligence , DI –data analytics and cloud accounting

Introduction

Accountants wants to help organizations and economies work better by giving advice and making good decisions .after all accounting is not an end in itself. all the activities associated with accounting ultimately aim to help people make good decision about the allocation of resources ,and hold other to account for their decisions .this underpins investment ,growth and growth and confidence in all organization and economics.

Digital skill training n the following topics are available either free of charge or at very competitive rates from sources such as coursera ,Edx and Udemy and Microsoft :

- Machine learning
- Digital marketing/content
- Network./Information security
- Blockchain
- AI
- Business Data analytics
- Fin.tech.
- Cyber Security



In October 2019 UAE announced that it will be established first artificial intelligence university in the world by named Mohamad Bin Zayed university of artificial intelligence (MBZUAI) in .its name is based on Abu Dhabi crown prince.it will be at Masdar City.

In this paper I have discussed that what is the role of AI in accountancy . how can Accountant use AI technologies and solve the different problems.

This paper can give below answer :

- What is long term vision for AI and accountancy ?
- How do artificial intelligence work together ?
- How are accountants using AI capabilities ?

Although AI technique such as machine learning are not new and pace of change is fast widespread adoption in business and accounting is still in early stage.in order to build a positive vision of the future, we need to develop a deep understanding of how AI can solve according and business problem ,the practical challenges and the skills accountants need to work alongside intelligence system.

In October 2019 UAE announced that it will be established first artificial intelligence university in the world by named Mohammad Bin Zayed university of artificial intelligence (MBZUAI) in .its name is based on Abu Dhabi crown prince.it will be at masdar city.

Artificial intelligence (AI) is fast evolving as the go to technology for companies across the world to personalize experience for individuals. The technology itself is getting better and smarter day by day,allowing more and newer industries to adopt the AI for various applications.banking sectors is becoming one of the first adopters of AI. and just like other segment ,banks are exploring and implementing the technology in various ways. Unsurprisingly, research firm are bullish on the potential of AI in banking .according to fintech India report by PwC in 2017,the global spending in AI \$5.1 billion, up from \$4 billion in 2015. There is a keen interest in the Indian banking sector as well.

History of Artificial Intelligence

The term AI was coined in 1956,but AI has become more popular today thanks to increased data volumes, advanced algorithms,and improvements in computing and storage .early AI research in the 1950s explored topics like problem solving and symbolic method.in the 1960s the US department of defense took interest in the type of work and began training computer to mimic basic human reasoning .for example ,the defense advance research project agency (DARPA) completed street mapping project in the 1970s.and a DARPA produced intelligence personal assistants in 2003,long before shiri,alexa or cortana were household names.

Trends of digital transformation in Accounting

A news report published in October in 'economics times said' starts ups witness 108% growth in funding in India in 2018 .the news report further mention that Artificial Intelligence was among those domain which witnessed fastest adoption industry sector currently there are 400 start ups working on AI and machine learning domain .about \$150 million dollars is invested in India 's AI sectors by private player alone and number has been growing since 2016.According to Accenture's recent Accenture Banking Technology Vision 2018 report, 83% of Indian bankers believe that AI will work alongside humans in the next two years — a higher than the global average of 79%. "93% bankers in India said



they increasingly use data to drive critical and automated decision-making. More partner-supplied customer data means a higher degree of responsibility for banks. Yet, 77% Indian bankers agree that most firms are not prepared to confront impending waves of corrupted insights from falsified data," said the report.

“AI is not new to India. Research institutions and universities have been working with various AI technologies for decades, and especially in the area of social transformation. With enabling technologies becoming a lot more accessible and inexpensive, AI is now becoming mainstream, with large enterprises and start-ups looking at different opportunities. Our research shows that the adoption of AI has the potential to add nearly \$1 trillion to the Indian economy in 2035. AI adoption is still in its nascent stages, and a lot more needs to be done to realize its full potential," says Rishi Aurora, managing director, financial services, Accenture.

“Application of AI and ML (machine learning) to different functions within the banking industry has enabled them to offer a far more personalized and efficient customer service. By achieving that, banks have also been able to gain better insights into their customers’ preference and expectations from the bank. Accordingly, automation of back-end workflows has shown better outcomes. According to various industry reports, more than 36% of large financial institutions are already investing in such technologies, and close to 70% are planning to in the near future,"
(according to Darshan Shah, MD, South Asia, LenddoEFL, a Singapore-based fintech company.)

ICAI and ICAEW Focused In Four Trends

- Artificial intelligence (Machine learning) in Accounting
- Blockchain technology in Accounting .
- Cyber security in Accounting.
- Data(big data) & Analytics in Accounting.
- Robotics process automation in Accounting
- Cloud accounting (computing)
- ERP implementation technology

Different Area of Digital Transformation In Commerce/Accounting :

Artificial Intelligence	AI Technologies Provide A Plethora Of Opportunities To Complement Human Intelligence And Combat Socio Economic Issues .
Quantum Computing	Applications In Secures Communication,Disaster Management Through Better Prediction, Computing, Simulation, Chemistry ,Healthcare , Cryptography, Imaging, Etc .
Block Chain Based Technologies	Development Of Solution In Area Such As ,Decentralize , Fianacing, (Defi), Sovering Digital Currencies , and The Possible Creation Of Sovering Identities
Semi-Conductor Technologies	Aim To Give Major Push To The Hardware Industry By Eliminating Boundaries Between They Digital And Physical World
Smart Manufacturing	Use Of Internet Of Thing(Iot), Blockchain, Big Data Analytics , AI And Robotics As A Part Of Industry 4.0 ,More Commercial Use Of Additive Manufacturing (I.E. 3D Printing)
Smart Mobility	Use OF IOT,And AI/ML In New Age Transporation And Logistic Solutions, Autonomous And Remotely And Remotely Pilots Vehicles ,Vehicle Powered By Renewable And Clean Fuels.
Advance Communication Technologies And Its Securities	Adoption Of 5G ,Cloud Computing, Penetration Of Broadband Internet To Remotess Least Developed Areas Using Satellite Based Based Internet , Optical Fiber etc.
Fintech	Use Of Fintech In Investors Decisions, Insurance Sector , Digital Payment Sector, Banking Sector, Governanace(DBT), Financial Market (Trading ,Online Bidding,Online Trading ,IPO Etc)



A database	A list of record /transaction,like ledger that keeps growing as more entries are added
What is blockchain ? Which is distribute	Copies of the entire database are stored on multiple computer on an network , syncing within minutes/seconds.
Adjustment transparent	Records stores in the database may be made may be made visible to relevant stakeholders without risk of alteration.
Highly secure	Malicious actor (hacker) can do no longer just attack one computer and change any records
And immutable	The mathematics algorithm make it impossible to change /delet any data once recorded and accepted.

The Impact of block chain in Accounting

According to ICAEW (2017)Blockchain can be viewed as accounting technology. It is concerned with the transfer of ownership of assets and maintaining a ledger of accurate financial information. Most professionals work to ascertain or measure property rights and obligations or to plan the best allocation of financial resources. For accountants, the use of blockchain brings transparency about ownership of property and bonds. By knowing obligations and transparency in transactions, an employee can function better and become more productive. This will dramatically improve work efficiency in turn. Blockchain has the potential to enhance the accounting profession by reducing the costs of maintaining and reconciling ledgers and providing absolute certainty over the ownership and history of assets

To understand how blockchain can be beneficial to traditional bookkeeping systems, we need to understand how transactions are entered and kept by business organizations in the past and present. Three important methods of bookkeeping are discussed below to showcase how accounting information is stored, verified, reconciled, and audited.

Single Entry System: According to Grigg (2005) In single-entry bookkeeping each business transaction is recorded in only one account. Although this mechanism is fast and simple, it was fraught with errors, be it accidental or fraudulent. Errors and frauds are common in this method of bookkeeping because of the absence of cross verification.

Double Entry System

According to Inghirami(2020)To address the issue of inaccuracies and errors about single-entry bookkeeping systems, accounting today is based on double-entry systems. At least two accounting entries are required for recording and documenting each financial transaction in the double-entry accounting system. Such entries may be in the account of assets, liabilities ,equity, expenditures, or profits. A debit amount for one or more accounts and a credit equal for one or more accounts results in total credits equal to all accounts in the general ledger. In case of an error-free recording of accounts, the total balance of all accounts with debit balances equals the aggregate balance of all accounts with a credit balance. Debit and credit accounts accounting entries normally have the same date and identification code in the two accounts so that every debit and credit can be traced to the journal and the transaction source and thereby establish an audit trail in the event of an error.

These accounting entries are then entered in the journal. The basic accounting equation of Assets equal Liabilities plus Capital would hold regardless of which accounts and how many are affected by a given transaction. Public auditors often check and validate the financial details of the company to gain the trust of outsiders. This is a costly and rigorous process that will not only bind the human resources (accountants, bookkeepers, and financial officers) of the company but According to Grigg 2005 ‘Triple



Entry Accounting' (Grigg 2005) argues that "It adds an important property to the accounting system; that of a clear strategy to identify errors and to remove them. Even better, it has a side effect of clearly firewalling errors as either accident or fraud". This method may minimize human documentation errors and inconsistencies but may not provide full assurance of the financial statement of the company.

Triple Entry System: Inghirami 2020). To enhance the reliability of corporate financial statements, this bookkeeping system has been suggested as an independent and safe paradigm. This method requires a neutral third party to oversee and record each accounting transaction meaning three entries were created, two entries were recorded by transacting parties, and third entry was recorded by an intermediary.

However, there are concerns regarding the use of third parties as they are vulnerable to cyberattacks. The next step in the accounting process may be Blockchain Technology: rather than holding independent documents based on transaction receipts, businesses may write their transactions directly into a joint ledger and establish a continuously interlocking accounting system. Because all the entries are circulated and encrypted, it is almost impossible to forge or delete them or cover up activity. With blockchain's advent, processes can become automated, cheap, and even more cost-effective.

A decentralized ledger supersedes the need for third parties who keep receipts centrally. Also, smart contract technology could enable rapid verification of transaction records per accounting standards or business rules. Transparency of Blockchain gives visibility for all authorized user's transactions, which can minimize auditor's work with sampling and validating transactions. This allows auditors to focus more time on inspections and anomalies.

Meanwhile, CPAs have the potential to leverage Blockchain technologies to apply their assurance offerings to the fields of cybersecurity and sustainability.

Impact of Data Analytics in Accounting Area

It's important in business as it help decode the problems faced by an organization and effectively use data to solve these issues.:

Business Analysts conduct market analyses, analysing both product lines and the overall profitability of the business. In addition, they develop and monitor data quality metrics and ensure business data and reporting needs are met. Strong technology, analytical and communication skills are must-have traits. Business analysts pore over company data and use their findings to help management make business decisions. This data, rather than being investment-related, involves the day-to-day operations of the business. Business analysts study strategy, business models, processes and workflows, and technical systems. They are called upon to spot inefficiencies and find opportunities for the company's operations to be streamlined and improved. Business Analyst job description typically includes:

- Creating a detailed business analysis, outlining problems, opportunities and solutions for a business
- Budgeting and forecasting
- Planning and monitoring
- Financial modelling
- Variance Analysis
- Pricing
- Reporting
- Defining business requirements and reporting them back to stakeholders



Impact of AI in Accounting :

Uses of AI:

Question :	Reply
What is long term vision for AI and accountancy ?	we need to envision how intelligence systems can enable better decisions in business ,and understand how accountants can help this process.
How do artificial intelligence work together ?	we need to develop an understanding of what is new about the technology ,how it can ‘turbo charge ‘ the capabilities of humans, and its limits.
How are accountants using AI capabilities ?	we need to explore real world examples of accountants using AI systems, including the specific benefits and limitation ,to help us develop the longer -term vision.

This reflect the framework laid out in our report providing leadership in digital world and is shown below :

POSITION FOR THE FUTURE	UNDERSTANDING THE TECHNOLOGY	APPLY AI TO ACCOUNTING
what is the long term vision for ai and accounting profession	how do artificial and humans intelligence work together ?	how are accountants using ai capabilities ?
<ul style="list-style-type: none"> • Focus On Purpose • Exploit Powerful Technologies • Think Radically • Be Adaptable 	<ul style="list-style-type: none"> • Human Decision Making • Approaches To Ai • Strengths Of Machine Learning • Limits Of Machine Learning 	<ul style="list-style-type: none"> • Accounting Problems • Practical Challenges • Roles And Skills • Institutional Issues

- Robotised management :

There is common assumption that AI could result in greater productivity and the optimal management of resources .already ,accountant rely on different types of software ,such as for customerrelationship management and business process management systems, to inform their decision making and planning and more is possible .a leading consulting firm recently shared best practice on how to your business, including how cognitive technologies can help generate insights that can reduce costs .

- Supper -intelligent investors :

According Economist”automated wealth manager “canoffer sound financial advice for a small fraction of the price of real life advisers.AI is also on the radar of the global investment community. AccordingBloomberg, Bridgewater associate, one of the world’s largest hedge fund manager, has started a new artificial intelligence system. the system will reportedly create trading ,algorithms that makepredictions based historical data and statistical probabilities. While Bridgewater AI system sounds like a promising competitive advantagefor individual investors ,it could present a detriment to markets in general .if All investors eventually have powerful AI system ,howwill this impact capitalflows and other macroeconomicsrealities ?decision made quickly couldultimately offset entire markets.

- Beware the “runaway effect ”:

As AI systems evolve, its is conceivable that -at some point -they could provide autonomous knowledge. However, algorithms designed to achieveoptimal official efficiencies could inadvertently result in negative or unforeseen consequences .this “runaway effect ”which occur whenthe very things we seek to fix or solve cause greater harm than good ,is a hazard that should be considered .if we design systems to maximise productivity ,we should be aware that negative side effects can arise in their wake. We may never reach a point of AI sophistication when it can be relied upon to mitigate all possible negativeoutcomes.



- From threat to opportunity :

Alan Turing ,one of the fathers of modern computing and subject of the recent movie the imitation game, concluded in his landmark paper “computing machinery and intelligence “ we may hope that machines will eventually compete with men in all purely intellectual fields “ to date we have already seen impressive progress of AI in many field and directions and it would be wise foraccountant to actively embrace its potential, rather than shy away from the uncertainties .

AI Can Help to Accountants to Solve Below Accounting Problems

Accountant apply their technical knowledge about accounting and finance to help business and stakeholders make better decisions .to support their decision makingand advice, accountants need high quality financial and non -financialinformation and analysis. This is reflected in a wide range of accountancy role across business and practice to capture, prepare, check and communicate information, to understand analysis, and to make a wide variety of decisions .

Accountants have been deploying technology for many years to help them providing better advice and make better decisions. AI technology can help them do this by solving three broad problems:

- Providing better and cheaper data to support decision making
- Generating new insight from the analysis of data ,and
- Freeing up time to focus more valuable tasks such as decision making problem solving advising, strategy development, relationship building and leadership.

Therefore, it is important to identify accounting and business problems where machine learning is likely to be particularly fruitful and where problem may be less suitable for these techniques. This will ensure that adoption efforts are driven by business need, rather than simply technology capabilities. to date ,there has been limited use in real world accounting but early research and implementation project include :

- Using machine learning to code accounting entries and improve on the accuracy of rules based approaches ,enables greater automation of process
- Improving fraud detection through more sophisticated ,machine learning models of “normal activities ”and better predication of fraudulent
- Using machine learning based predictive models to forecast revenues :and
- Improving Access to, and analysis of, unstructured data, such as contracts and emails ,though dep learning models.

Conclusion

Digital transformation in accounting, driven by data analytics and technological advancements, has revolutionized traditional accounting practices. The integration of artificial intelligence (AI), cloud computing, and blockchain has enhanced efficiency, accuracy, and security in financial processes. Data analytics enables accountants to extract meaningful insights, improve decision-making, and provide strategic advisory services beyond conventional bookkeeping.

As automation reduces manual tasks, accountants must adapt by developing skills in data interpretation, cybersecurity, and emerging financial technologies. While digital transformation offers numerous benefits, challenges such as data security risks and the need for continuous technological updates must be addressed.

In conclusion, the future of accounting lies in embracing digital transformation, leveraging data-driven insights, and adapting to technological innovations. Organizations that invest in digital tools and upskill their workforce will remain competitive in the evolving financial landscape



AI Can provides a strong platform to build and share understanding of the specific application of machine learning technologies in accounting profession. We also support other stakeholders in the Accounting profession who need to understand the capabilities and issues here, including:

- Educators and training providers, who are considering the future skills of accountants:
- Regulators, who are considering the risks attached to new technologies
- Governments and policymakers
- Computer scientists and machine learning experts, who understand the strengths and limits of techniques
- Software providers who are developing solutions for accounting problems using AI
- Other experts and professions who are facing similar opportunities and threats from AI

References

“Chartered accountant journal” volume 65, no 1 July -2016 page no ; 56-58

The Royal Society (2017), Machine Learning: The Power and Promise of Computers that Learn by Example, London: The Royal Society

“Artificial Intelligence in Indian banking: Challenges and opportunities” 09 Jul 2018, Mint Newspaper

“Future of Artificial Intelligence in the Banking Sector” magazine Business and Economy, Sci-Tech 16th July, 2019

Website

<http://carnegieindia.org/2016/08/11/>

[http://www.cxotoday.com/story/impact of AI on banking](http://www.cxotoday.com/story/impact_of_AI_on_banking)

<http://www.mintnews.com/>

Research Review

The Academic Research Issue

Opened Access, Peer-Reviewed & Refereed Journal

An International Multidisciplinary Journal

This Open Access, Peer-Reviewed and Refereed International Research Journal - Research Review - The Academic Research Issue is owned by Shree Vishat Krupa Education and Charitable Trust, Jaliyala, Ta:Limbd, Dist: Surendranagar, Gujarat - INDIA. Dr. D. M. Domadiya, Associate Professor & Head, Department of Hindi, M.B. Arts & Commerce College, Gondal, District: Rajkot, Gujarat - INDIA is the chief editor of the journal which has been given required sanction and approval by the *National Institute of Science Communication and Information Recourses (NISCAIR), New Delhi*, on 7th June, 2013 with their letter vide NSL/ISSN/INF/2013/1279 ISSN: 2321-4708 on the name of **Research Review – the Academic Research Issue**.

This is an international multidisciplinary research journal which regularly appears in the every month. This multidisciplinary journal publishes research paper/article on vast spectrum of areas including all the major subjects of Arts, Commerce, Science, Humanities and Education.

The Research scholars are requested to send only the soft copy of their research papers specified as per the guidelines and specifications of research methodologies in their respective disciplines. There is a panel of subject experts which ensures the quality measures of the journal. Only genuinely researched and original article/research paper would be considered for publication. The publisher reserves all the rights not to consider the paper for publication if they deem it unworthy of publication.



Sd/-
Dr. D. M. DOMADIYA