Double Blind Peer Reviewed Journal

VANIJAY SHREE

An Annual National Journal of Commerce and Management of DEI

वाणिज्य श्री

डीइआई की वाणिज्य और प्रबंधन की एक वार्षिक राष्ट्रीय पत्रिका

"हम शोध गुणवत्ता एवं शोध विकास के लिए हमेशा प्रतिबद्ध हैं"

Volume - I Issue – II **December 2022**

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Prof. L.N. Koli
Chief Editor

PUBLISHED BY

Dayalbagh Educational Institute (Deemed to be University)

Dayalbagh – Agra 282005

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CHIEF EDITOR'S MESSAGE

Prof. L.N. Koli (D.Litt.)
Chief Editor

Dear Readers,

It gives me much pleasure to publish 2nd issue of "Vanijay Shree (वाणिज्य श्री)" to you an "Online Journal of Commerce and Management" in the month of May 2023 of the edition of December 2022. The second issue of the journal is being released to mark this important milestone in the history of the University. There are only a few institutions in the country that have an ever-increasing Commitment towards providing a value-based system of quality education and the DEI is one of them. DEI is a name that reminds us at the very first instance about 'values. A university that provides academic excellence to the students with relevance to the contemporary needs of this dynamic, competitive era – Today, when the fabric of the society is deteriorating, this University provides unique, innovative, comprehensive and value – based education to its students; contributing to the all-round development of the students, hence creating a well-rounded personality. In this way, at the later stage, shall contribute to the nation – building, as the youth of this country are torch bearers of development.

"Vanijay Shree (वाणिज्य श्री)" would like to show – case pertinent research outcomes in the domain of Commerce and Management researchwhich would be an eye opener for researchers as well as readers. With the expectation, this issue of the ""Vanijay Shree (वाणिज्य श्री)" will serve the philosophies of the research to encourage the research practices while fulfilling social and academic obligation.

This journal my gratitude to one more step in our journey towards research and education in serious issues particularly at a time when India making sustained efforts to establish its growth momentum for long journey.

I congratulate the editorial team, advisory board, review board and contributors of "Vanijay Shree (वाणिज्य श्री)" for its wonderful endeavor in developing worthwhile reading materials. Wishing you all the very best and hoping to see quality research papers in future, I conclude with gratitude.

Prof. L.N. Koli (D.Litt.)
Chief Editor
(University Coordinator)
University Post Graduate Studies and Research, DEI

FROM THE EDITOR'S DESK

Dear Readers

Greeting's !!!

It is our great pleasure to welcome you to the 2nd online edition of the Double-Blind Refereed Peer Reviewed Journal "Vanijay Shree (वाणिज्य श्री)": An Annual Online National Journal of Commerce and Management.

We are thankful to the contributors for their valuable contribution to make the Journal a Success. We are also grateful to the advisory board members, review panel and contributors for their support, without which the accomplishment of the journal would have been worthless. We value your association with us and welcome your comments and observations to improve the Journal.

Thank you.

Prof. L. N. Koli (D. Litt.)
(Chief Editor)

Dr. Anisha Satsangi
(Assistant Editor)
Faculty of Commerce, DEI, Agra

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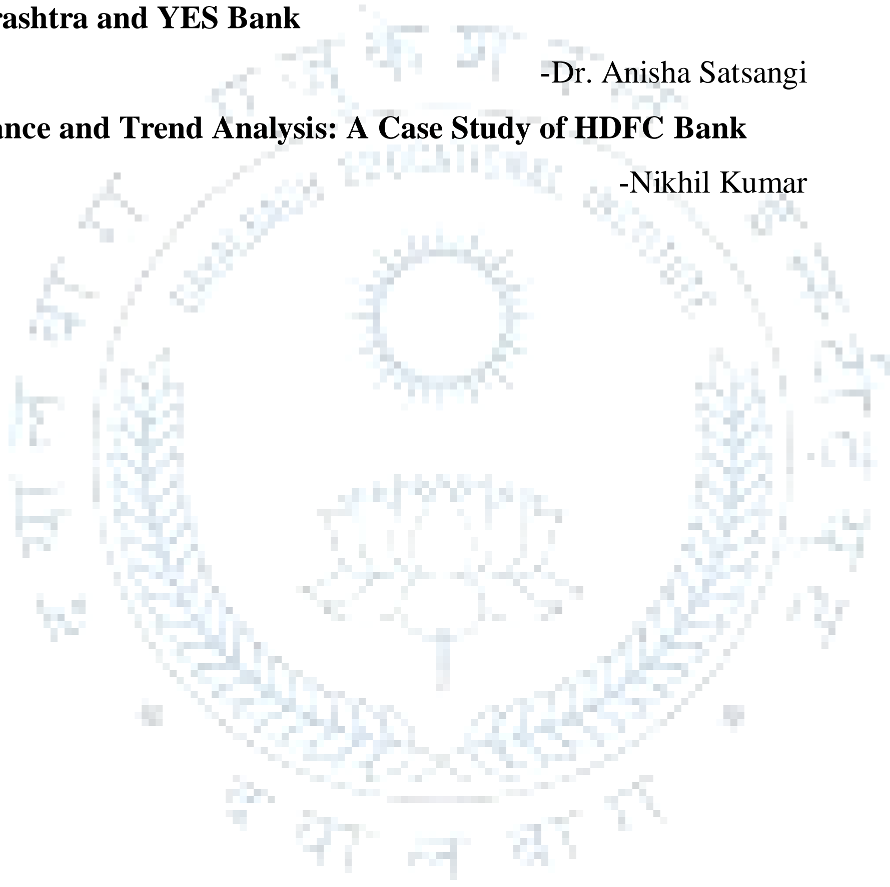

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TERRORISM FINANCING AND MEASURES TO COMBAT IT

Abstract

The offense of money laundering is an unlawful act of concealing the origin of tainted wealthand posing it as untainted wealth by passing it through a complex sequence of banking transfers or commercial transactions. This process's layout in general returns "clean" money to the launderer in an ambiguous and indirect fashion.Money Laundering is a criminal act of misrepresenting tainted money or illegally obtained money, such as from drug trafficking or terrorism, being obtained from legitimate resources. It is one of the unlawful activities through which criminals disguise their original ownership of undeclared money by making proceeds of crime appear to have been derived from lawful sources. The money laundering is a threat which weakens security of the citizens as well as it poses as a constant threat to the financial stability of the nation.

Key-words: Money laundering, Unlawful Activities, Financial, Terror Financing.

Research Methodology

A qualitative approach was chosen as the research method for this study.

Aim of the Research

Money laundering and growing risk of terrorist attacks have evolved as a serious concern in India considering the fact that the country is one of the largest growing economies in the world. In this paper we will highlight the steps taken by India to combat the serious threat of money laundering and terror financing.

Introduction

The number and type of terrorist groups and related threats have changed over time, the basic need for terrorists to raise, move and use funds has remained the same. However, as the size, scope and structure of terrorist organisations have evolved, so too have their methods to raise and manage funds.

Money laundering and the financing of terrorism are financial crimes with economic effects. They can threaten the stability of a country's financial sector or its external stability more generally. The objective of understanding the problems of money laundering and terrorist financing have long been recognised as important in mitigating the risks that they pose to the maintenance of national security within and beyond the borders. In fact, several regional and international organizations like the International Monetary Fund (IMF), United Nations (UN), Asian Development Bank (ADB) and others are involved in countering the twin problems of money laundering and terrorist financing.

Counter Steps Against Terrorism Financing

The **Financial Action Task Force (FATF)** established in 1989 at a Group of Seven (G7) Summit held in Paris recognised the need to step up efforts to ensure strict action on illicit financing of crimes such as terrorism and prevent attempts to conceal or disguise the identity of illegally based profits.

The FATF is a global money laundering and terrorist financing watchdog that sets international standards to prevent economic and financial crimes in a country with inter-connected linkages across the world.

The objectives of the FATF as identified are therefore "*to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system*." It acts as a policy-making body working to bring about national legislative and regulatory reforms in these areas.

FATF and India's Legal and Institutional Frameworks:

Money laundering and growing risk of terrorist attacks have evolved as a serious concern in India considering the fact that the country is one of the largest growing economies in the world. Illegal activities committed within and outside the country, like drug trafficking; fraud, counterfeiting of Indian currency, transnational organised crime human trafficking and corruption are the sources of money laundering and terrorist funding.

In case of domestic crimes, the most common money laundering methods are opening multiple bank accounts, intermingling criminal proceeds with assets of a legal origin, purchasing bank cheques against cash, and routing through complex legal structures. In the case of transnational organised crimes, the use of offshore corporations and trade based money laundering are some of the methods used to disguise the criminal origin of the funds. Besides, terrorists also use *hawala (illegal)* transfers to move money within and outside the country.

As far as the legislative framework in the country is concerned, the first parliamentary law provided for the prevention of certain unlawful activities of individuals and associations and for matters connected therewith. It was known as the **Unlawful Activities (Prevention) Act, 1967 (UAPA)**to criminalise terrorist financing. It was further amended in 2019 to broaden its scope and confirm with the requirements of the United Nations Convention on the Suppression of the Financing of Terrorism.

The **Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974** was introduced to prevent smuggling and the Smugglers and Foreign Exchange Manipulators Act, 1976 provided for the forfeiture of illegally acquired properties of smugglers and foreign exchange manipulators.

The Narcotic Drugs and Psychotropic Substances Act, 1985 made stringent provisions for the control and regulations of operations relating to narcotic drugs and psychotropic substances and **the Foreign Exchange Management Act (FEMA), 1999 was enforced to regulate the development and maintenance of foreign exchange market.**

The Prevention of Money Laundering Act, 2002 (PMLA). The main objective of PMLA is to prevent money laundering and for matters connected therewith or incidental thereto. It was realised by the lawmakers of India and the world over that money laundering poses a serious threat not only to the financial systems of countries but also to their integrity and sovereignty in order to

curb the offense of money laundering which threatens the stability of nation as it promotes anarchism and disorder in the nation directly as well as indirectly, PMLA was brought into force in 2005.

Since the publication of the Mutual Evaluation Report on 24 June, 2010, India has been reporting to the FATF on a regular basis on the progress made in the implementation of its Action Plan to strengthen India's counter-financing and money laundering system. India has particularly focussed its attention on:

- Amending nearly all of the technical deficiencies identified with respect to criminalisation of money laundering and terrorist financing.
- 'Substantially addressing' the technical deficiencies related to customer due diligence and other preventive measures.
- Augmenting its outreach programme to provide guidance to the financial sector on suspicious transaction reporting obligations and engaging in extensive compliance monitoring; and
- Bringing several of the Designated Non-Financial Businesses and Professions within the scope of anti-money laundering and countering terrorist financing measures.

India's compliance with global standards in countering money laundering and terror funding is on the right track, however the gaps need to be addressed and worked upon.

India has adopted its own model to fight money laundering and terrorist financing based on its specific domestic and regional considerations. The Ministry of Home Affairs (MHA) monitors the system to track terror funding. In fact, a special cell called Combating Financing of Terrorism (CFT) Cell was created in the Internal Security Division of MHA in 2011 to coordinate with Central Intelligence Enforcement Agencies and the State Law Enforcement Agencies to develop an integrated approach to tackle the problem of terror funding. The MHA also coordinates with the FATF Cell in the Department of Economic Affairs, Ministry of Finance. The Financial Intelligence Unit-India (FIU-IND) established under the Ministry of Finance in 2004 receives, analyses and disseminates information relating to suspicious financial transactions involving suspected money laundering and terrorist financing to Intelligence / Enforcement Agencies and Regulatory Authorities.

To enhance the functionality of the FATF in India, government agencies have launched a National Risk Assessment exercise on January 2016 so as to identify the sectors that are most susceptible to money laundering and terror funding and thereby plug deficiencies, if any. This conforms with the FATF recommendations. The World Bank had made a customisable self assessment software tool available to Indian agencies which emphasises on all vital aspects of money laundering, including terror financing risks, and helps identify threats and vulnerabilities in different sectors.

Conclusion

India has taken important steps in the fight against terror financing and money laundering but it would be necessary for the administration not to be complacent.

Modalities keep changing and offenders and terrorists exploit different channels to raise money for planning and carrying out crimes in support of their cause. As such, criminalizing terrorist financings, freezing terrorist's assets and ensuring that financial intelligence units are operationally independent must be consolidated for a sustainable and consistent programme to fight money laundering and terrorist financing. Some other recommendations can be mentioned below:

- A review from time to time to check the effectiveness of systems and their functioning would also be desirable.
- Measures should not only be undertaken at the national level, but they can be complemented by strengthening cooperation at the local level to create constrictions for terrorist financing and money laundering.
- Better information sharing between states and the centre on national risk assessment and threats is desirable.
- There is also need for financial data by which rogue companies and individuals indulging in money laundering can be identified.
- Implementation of a monitoring system and a system of proper checks and balances can help ensure that money laundering is prevented in the real estate sector.
- Adherence to KYC norms needs strict compliance.
- In order to bring transparency in receipt and use of foreign donations, random checks can be undertaken to verify the last five years' transactions of select non-governmental organisations having dubious records.
- Besides, financial intelligence needs cadre-based support which means direct recruitment and training of select cadres having a security background.
- Agencies such as Serious Fraud Investigation Office and Central Economic Intelligence Bureau need to be strengthened to take up this aspect of terrorist financing.
- Under the objectives of Economic Intelligence Council and Regional Economic Intelligence Committees, the terror financing issue has been left untouched. This needs to be incorporated into these two core coordination committees.

The fight against terrorism financing and money laundering thus requires an expanding and consistent effort with regard to prevention, detection and prosecution of offences. Only then can financial systems and national security within and beyond the borders be protected. Lesser threats to the economy also imply financial sector integrity which contributes to strengthening overall safety and security.

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Analysis of Financial Performance with the help of the DuPont Model
(With special reference to Food Processing Companies)

Abstract

We can learn about a company's financial position by analyzing its Financial Performance. There are various methods for analyzing a company's performance. This research aims to examine and analyze the Financial Performance of selected Food Processing Companies, as well as the impact of various ratios on the Return on Equity. The researchers used DuPont analysis and Step-wise Regression analysis to achieve their goals. To help achieve these goals, five Food Processing Companies listed on the National Stock Exchange have been chosen. This research is conducted from 2019-20 to 2021-2022.According to the findings of this study, the profitability of KRBL Ltd is the highest, followed by Kohinoor Food Ltd, which is the lowest. Gujarat Ambuj Exports Limited has the highest asset turnover, while Kohinoor Food Ltd. has the lowest. In this study, KRBL Ltd has the highest equity multiplier and Kohinoor Food Ltd has the lowest. According to the overall findings of this study, Kohinoor Food Ltd's functions are not going well.

The second goal of this study discovered that certain ratios have a positive impact on ROE. However, in each case, "the P value is greater than 0.05," which is not statistically significant.

Keywords: DuPont Model, Financial Performance, Food Processing Companies.

Introduction

The Food Processing sector in India is a rising star that has gained Fame in recent years. After China, India is the second largest producer of Fruits and vegetables globally. Among the major processed food products exported from India are processed fruits and juices, pulses, guar gum, groundnuts, milk products, cereal preparations, oil meals, and alcoholic beverages. Analysis of this sector is playing the most important role in this sector's growth. The government also aids in this sector. Therefore, this sector will rise, then India's economy will also rise.

For analysis of any sector financial statement analysis is essential. To evaluate the effectiveness of corporate financial decisions, a financial ratio analysis is required. This examination will focus on the company's prospects and uncertainties. Aside from financial ratio analysis, the financial statement can be examined using DuPont analysis, which employs the Return on Equity. The DuPont modeling framework was introduced by the DuPont Corporation in 1920. It is now common practice to compare the efficiency of operations of two comparable businesses. By breaking down the different determinants of Return on Equity (ROE), DuPont analysis is a useful technique for determining how much wealth is generated for shareholders. ROE is Comprised of three major components: "the Net Profit Margin, the Total Assets Turnover Ratio, and the Equity

Multiplier". This Model is the best technique for managers to analyze and improve a company's Financial Performance.

Review of Literature

F. U. Khanet. al (2022) *"Assessing and Evaluating Financial Performance of Textile Companies Using Dupont Model: Evidence from Pakistan"*. The primary goal of this research was to use an improved version of the Dupont analysis method to evaluate the Performance of textile organizations in Pakistan. Using multiple linear regression analysis, this study discovered that NPM and EM had a substantial positive effect on ROE. AT, on the other hand, has an unfavorable effect on the ROE of Pakistan's 74 textile organizations.

T. Açikgöz, & G. S. Kilic, (2021) "*Investigation of Financial Performance and Market Value of Technology Firms with Dupont-Regression Analysis"*. The study's main goal was to investigate the factors that influence the financial results and market value in Turkey's technology industry. Researchers used Multiple Linear Regression with DuPont Analysis. In this study, researchers determine the different elements of DuPont Analysis. After that, using DuPont Analysis and Regression research, investigate Financial Performance factors related to selected firms' market values. Current literature suggests that Financial Performance components are insufficient to clarify the market significance of Turkish technology firms, according to the study's findings.

S. Das, (2021) "*Analysis of Profitability of Selected Multinational Companies in India"*. This study's main goal was to use Dupont analysis to evaluate the financial ratios and calculate the Return on Assets. This research focused on seven publicly traded multinational companies. This study was conducted from 2004 to 2018. The data was examined using the step-wise regression method. This study discovered that certain variables have substantial effects on the ROE of selected multinational companies.

Ding Li (2021) *"Analysis of Enterprise Profitability Based on Dupont Analysis Method"*. Researchers examined a Chinese life insurance company in this study. The DuPont Analysis Method was the primary method used in the study, and to assess company viability, it was accompanied by the "factor analysis method" and the "comparative analysis method".

M. Mohanasundari, et. al (2020) *"Using Dupont Analysis to Assess the Financial Performance of The Selected Companies in the Plastic Industry in India"*. This study's main aim was to assess and compare the financial results of selected Indian PVC pipe organizations that were listed on Indian stock exchanges over five years. According to the findings of this study, a composite of twelve ratios can provide a meaningful conclusion about the industry and effectively analyze the firm's operations.

S. C. B. Pabowo, &N. Korsakul, (2020) "*Analysis of Financial Performance of Mining Companies Listed in Indonesia Stock Exchange"*. The primary objective of this study was to assess the financial results of mining companies listed on the Indonesia Stock Exchange during the period under consideration. The researchers examined 37 mining companies for this study. According to the findings of this study, "financial ratio

analysis using liquidity ratios, activity ratios, solvency ratios, profitability ratios, and DuPont analysis fluctuated, as evidenced by the increase, and decrease in most mining companies during the research period."

M. S. AlAli, (2019) *"The Use of DuPont Modified Financial Model in Evaluating the Financial Performance of Kuwaiti Banks*". The primary goal of this research was to assess the financial results of Kuwaiti banks. The financial year 2012 to 2017 was the study period of this research. By employing an updated DuPont analysis method based on a Return on Equity model. The original DuPont model, which assesses Return on Assets (ROA) as the model's goal, was the focus of this study, according to the outcomes.

K. Bhagyalakshmi, &S. Saraswathi, (2019) *"A study on Financial Performance evaluation using DuPont analysis in select automobile companies"*. The purpose of the research was to provide insight into the performance of selected Automobile Companies using DuPont analysis via Return on Equity. The study concentrated on ten Automobile Companies listed on the NSE. The period of this research was from the financial year 2013 to 2017. This research relied strongly was on secondary data. All variables except EM had a positive relationship, according to the study's findings, and there was a substantial disparity in the financial results of selected organizations in terms of Return on Equity and Return on Assets.

Kim Hak-Seon (2016) *"A study of Financial Performance using DuPont analysis in the food distribution market"* The only aim of this research was to study the financial results of the specified Food Distribution Company. The researcher used the DuPont Analysis to calculate the ROE and ROA ratios in this study. This study found that Hyundai Green Food has the best Financial Performance, followed by, Dongwon Home Food, Food Merce, and Lotte Food.

S. C. Sheela, & K. Karthikeyan (2012) *"Financial Performance of Pharmaceutical Industry in India Using DuPont Analysis"* The purpose of this research was to quantify the Financial health of the pharmaceutical Industry by focusing on the top three companies, Cipla, Dr. Reddy's Laboratories, and Ranbaxy. The study was carried out between 2003 and 2012. According to the findings of a study, ROE and ROI are the most extensive measurements of the profitability of an organization. It was considered operational and investment decisions, financing, and tax issues.

Objectives of the Research

1. To examine and assess the financial Performance of selected Food Processing Companies with help of the DuPont Model.
2. To analyze the impact of selected ratios on the Return on Equity of selected Food Processing Companies.

Research Hypotheses

H_0: There is no significant impact of selected ratios on the Return on Equity of selected food Processing Companies.

H_1: There is a significant impact of selected ratios on the Return on Equity of selected food Processing Companies.

Research Methodology

This research depends on secondary data as well as an analytical in Nature. Secondary data is gathered from annual reports and selected companies' official websites. The Duration of this study is three years, from 2019-20 to 2021-22. The top five food processing companies in this study are Bikaji Foods International Ltd., Kohinoor Food Ltd., Gujarat Ambuja Exports Limited, Chamanlal Setia Exports Ltd., and KRBL Ltd. These companies are traded on the National Stock Exchange. This research's analysis was carried out using statistical tools such as percentage, ratio, and step-wise regression analysis.

Data Analysis

Net Profit Margin (NPM): This ratio facilitates cash flow measurement and is a key indicator of a company's overall financial health. This ratio is used to describe the companies' various levels of activity.

NPM= NET PROFIT/NET SALES*100

Table 1: "Net Profit Margin of Selected Food Processing Companies"

Net Profit Margin (%)					
Companies/ Year	**Bikaji Foods International Ltd.**	**Kohinoor Food Ltd.**	**Gujarat Ambuja Exports Limited**	**Chamanlal Setia Exports Ltd.**	**KRBL Ltd.**
2019-20	5.16	-716.73	3.85	6.72	12.47
2020-21	6.85	-13.61	7.21	9.69	14.07
2021-22	5	-6.57	10.26	7.11	10.92
Average	**5.67**	**-245.6366667**	**7.106666667**	**7.84**	**12.486667**
S.D.	**1.025036585**	**407.993979**	**3.206249107**	**1.61397026**	**1.5750661**

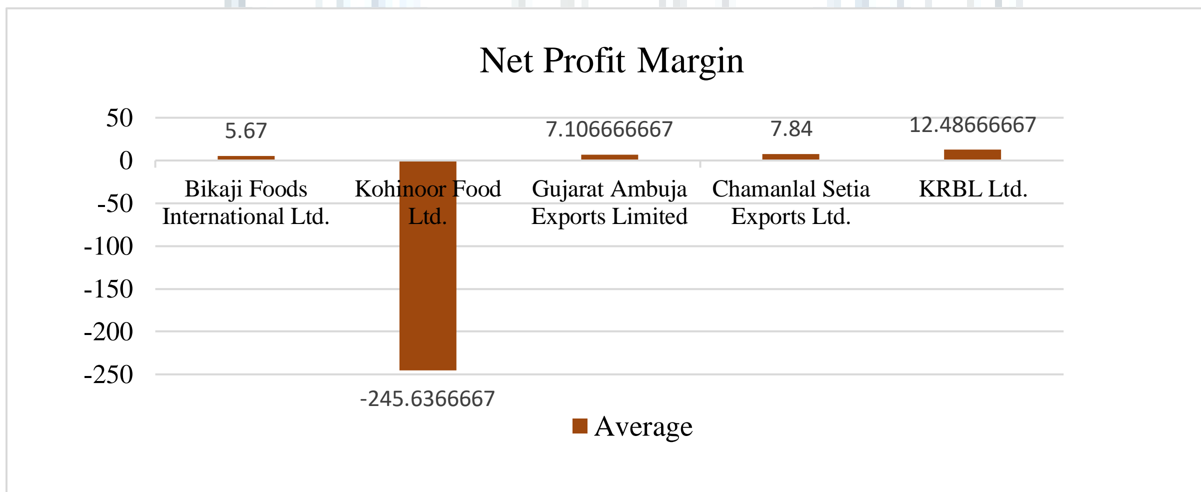

Figure 1: "Analysis of Net Profit Margin of Selected Food Processing Companies"

From above the analysis, KRBL Ltd.'s (12.48%) average Profit Margin is higher than other selected companies in this study. However, Kohinoor Food Ltd. (-245.63%) registered an average profit margin negative. In this study, researchers also found the

highest standard deviation (407.99%) in Kohinoor Food Ltd.

Total Assets Turnover Ratio (TATR): This ratio aids in comprehending the business organization's efficiency position. This ratio describes a company's ability to maximize sales from all financial resources.

Total Assets Turnover Ratio= Net sales/Total Assets*100

Table 2: "Total Assets Turnover Ratio of Selected Companies"

Total Assets Turnover Ratio (%)					
Companies/ Year	**Bikaji Foods International Ltd.**	**Kohinoor Food Ltd.**	**Gujarat Ambuja Exports Limited**	**Chamanlal Setia Exports Ltd.**	**KRBL Ltd.**
2019-20	1.59	0.1	2.17	1.84	1.01
2020-21	1.62	0.12	2.15	1.62	0.86
2021-22	1.47	0.44	1.67	1.47	0.88
Average	**1.56**	**0.22**	**1.996666667**	**1.643333333**	**0.9166667**
S.D.	**0.079372539**	**0.190787**	**0.283078317**	**0.186100331**	**0.081445**

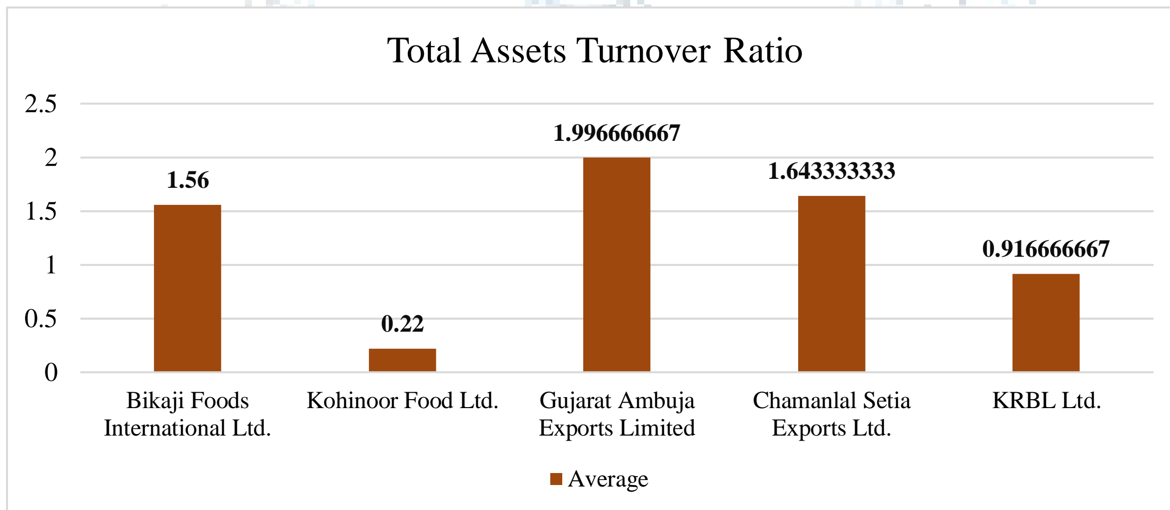

Figure 2: "Analysis of Total Assets Turnover Ratio of Selected Companies"

From above the analysis, Gujarat Ambuj Exports Limited's (1.99 %) average total assets turnover ratio is higher than other selected companies in this study. Moreover, Kohinoor Food Ltd. (0.22%) registered the lowest average total turnover ratio.

Equity Multiplier (EM): This ratio is useful in determining a company's ability to meet its future debt responsibilities. It provides companies with a clear sense of solvency.

Equity Multiplier = Total Assets/Total Debts*100

Table 3: "Equity Multiplier of Selected Companies"

Equity Multiplier (%)					
Companies/ Year	**Bikaji Foods International Ltd.**	**Kohinoor Food Ltd.**	**Gujarat Ambuja Exports Limited**	**Chamanlal Setia Exports Ltd.**	**KRBL Ltd.**
2019-20	1674.29	42.03	1180.69	623.26	915.13
2020-21	1026.92	39.45	1423.36	541.79	1569.34
2021-22	767.62	30.32	1028.24	527.41	5302.41
Average	**1156.276667**	**37.2666666**	**1210.763333**	**564.153333**	**2595.6267**
S.D.	**466.971608**	**6.15274193**	**199.2693093**	**51.6903727**	**2366.8554**

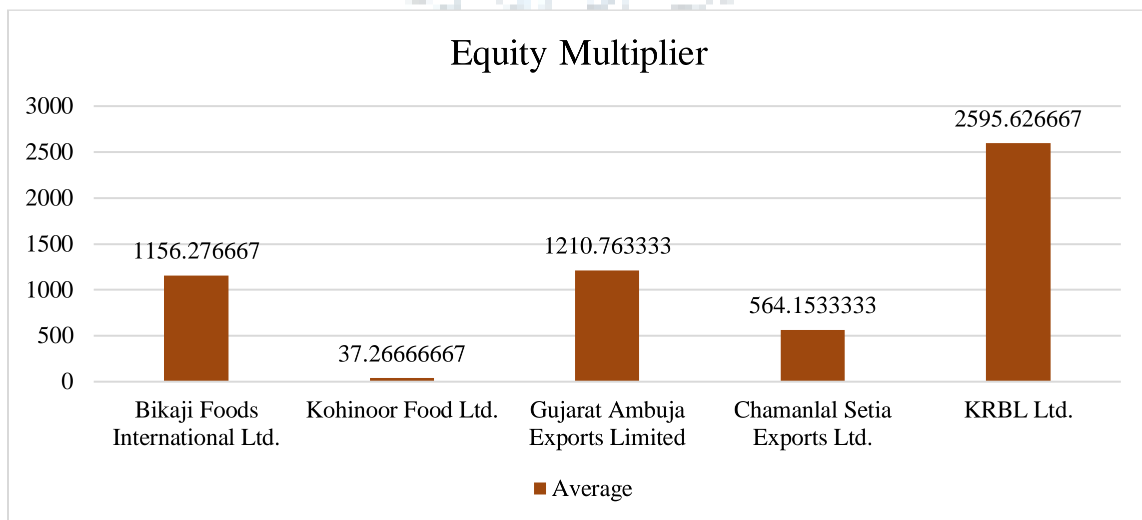

Figure 3: "Analysis of Equity Multiplier of Selected Companies"

From above the analysis, KRBL Ltd's (2595.62 %) average equity multiplier is higher than other selected companies in this study. However, Kohinoor Food Ltd. (37.26 %) registered the lowest average equity multiplier. In this study, researchers also found the lowest variation in Kohinoor Food Ltd and the highest variation in KRBL Ltd.

Return on Equity (ROE): This ratio aids in determining how much return companies receive from their shareholders' equity. This is the result of multiplying the three ratios mentioned above.

Return on Equity= NPM*TATR*EM

Table 4:"Return on Equity of Selected Companies"

Return on Equity (%)					
Companies/ Year	**Bikaji Foods International Ltd.**	**Kohinoor Food Ltd.**	**Gujarat Ambuja Exports Limited**	**Chamanlal Setia Exports Ltd.**	**KRBL Ltd.**
2019-20	10.5	44.96	10.99	19.2	17.93

2020-21	14.85	1.01	20.3	23.45	15.2
2021-22	9.72	1.22	22.35	15.86	11.32
Average	**11.69**	**15.73**	**17.88**	**19.50333333**	**14.81666**
S.D.	**2.764290144**	**25.3141403**	**6.054312513**	**3.804081142**	**3.321631**

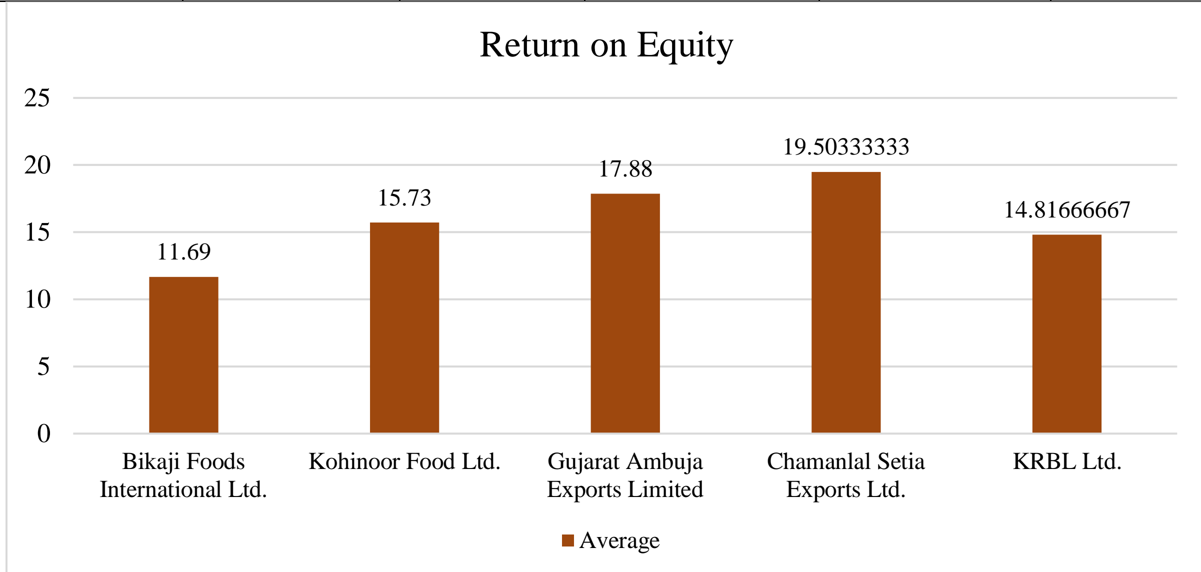

Figure 4: "Analysis of Return on Equity of Selected Companies"

From above the analysis, Chamanlal Setia Exports Ltd.'s (19.50%) average return on equity is higher than other selected companies in this study. However, Bikaji Foods International Ltd.(11.69%) registered the lowest average Return on equity. In this study, researchers also found the lowest variation in Bikaji Foods International Ltd. and the highest variation in Kohinoor Food Ltd.

Impact of Various Elements on ROE- To know the influence of various elements on ROE researchers used step-wise regression analysis through SPSS 26. In this analysis, the Dependent variable is ROE and the independent variable is NPM, TATR, and EM.

Equation-

$$ROE = \alpha_1 + \beta_1 (NPM) + \beta_2(TATR) + \beta_3(EM) + €$$

Here, $\alpha_1 =$ Intercept, €= error

Model Summary										
"Model"	"R"	"R^2"	"Adjusted R^2"	"Std. The errorin the Estimate"	"Change Statistics"					"Durbin-Watson"
					"R^2 Change"	"F Change"	"df_1"	"df_2"	"Sig. FChange"	
1	$.017_a$	0.000	-0.333	3.45486	0.000	0.001	1	3	0.978	
2	$.394_b$	0.155	-0.69	3.89001	0.155	0.366	1	2	0.607	

3	.428c	0.183	-2.268	5.40935	0.028	0.034	1	1	0.883	0.903

The above Analysis represents that NPM has a greater impact on ROE. The value of R, in this case, is .017 which indicates a highly positive relationship between NPM and ROE. 00.0% of variance explained by NPM. The above table shows that NPM and TATR have the next greater impact on ROE. In this case, the value of R is 0.394 which implies a moderate positive relationship between NPM & TATR, and ROE. 15.5% of the variation is explained by NPM and TATR. Moreover, the above table shows that NPM, TATR, and EM have the next greater impact on ROE. R-value, in this case, is .428 which depicts a moderate positive relationship between NPM, TATR & EM, and ROE. 18.3% variation explained by NPM, TATR, and EM.

In all the above cases, "the P - value is greater than 0.05. The null hypothesis is accepted, and the alternative hypothesis is rejected", according to this, NPM, TATR, and EM have no significant impact on ROE.

Conclusion

The first goal of this research is to examine and analyze the financial results of selected Food Processing companies. For achieving this objective, researchers used Dupont Analysis. According to this analysis, the researcher found that the Profitability of KRBL Ltd is best followed by Kohinoor Food Ltd is Negative. The Assets turnover of Gujarat Ambuj Exports Limited is the highest and Kohinoor Food Ltd. is the lowest. From the Equity multiplier, KRBL Ltd is the best and Kohinoor Food Ltd is the least in this study. The overall study found that Kohinoor Food Ltd.'s functions not going well.

The second goal of this study discovered that certain ratios have a positive impact on ROE.

However, in each case, the "P value is greater than 0.05", which is not statistically significant.

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Fifth (5th) Industrial Revolution and Right to Rehabilitation of Means of Livelihood for the Entrepreneurs of Sick/ Fail Micro and small Enterprises (MSE's) in India: Financial Terrorism of Banks and Genocide of Entrepreneurship

Abstract

The present paper is concentrating for the 'Conscious Reform', in terms of 'Right to Rehabilitation of Means of Livelihood' for the entrepreneurs of sick/ fail micro and small enterprises (MSE's) in India, which shall be the root cause of the 5th Industrial Revolution and the which was also provided as a legal right to all entrepreneurs by issuing some mandatory guidelines by the RBI, during this COVID-19 Period, when the circumstances were beyond the control.

Since 1987 till date the Banking system in India is focusing on the 'Commercial Wisdom' for MSEs and therefore their working is archaic, despotic, destructive and suicidal to not only for the Banks but also for the Indian economy, because it does not focus on revival and rehabilitation of needy and eligible MSE's and the Banks have ruined millions sick/ fail MSE's, as a 'Financial Terrorism', which is on record.

Therefore, we have tried to conscious about the actual status of the 'Tree' of the 'Socio-Economic System' named 'Micro and Small Enterprises' which has the equal importance/ value as a 'Tree' has in the 'Ecological System' and that can only be flourished under the aura of 'Conscious Wisdom' instead of 'Commercial Wisdom'.

Keywords: Socio-Economic System , Sick/ fail MSE's, Commercial Wisdom, Financial Terrorism, Conscious wisdom, Right to Rehabilitation of Means of Livelihood, 5th Industrial Revolution, Conscious Reform

Introduction

One of the major cause for economic crisis and lack of expected growth in MSE sector in India is, because not only, the Banks have not complied with the mandatory guidelines issued by the RBI since 1987 for the rehabilitation of sick micro and small enterprises, under the same spirit, as they did during this COVID-19 period, but also have ruined millions micro and small enterprises through arbitrarily exercising the coercive recovery measures under RDDBFI Act 1993 and SARFAESI Act 2002. Moreover the Banks have also flouted the legal and fundamental rights of the said entrepreneurs since 1987, which is on record as an evidence of the 'financial terrorism' of the banks against the said entrepreneurs.

That, as during this COVID-19 Pandemic, while, the circumstances were beyond the control of the entrepreneurs of whole country, the RBI had issued some mandatory guidelines dated 27.03.2020, 23.05.2020 and 06.08.2020 in public interest, particularly for eligible micro and small enterprises and had given relief in terms of providing moratorium for 6 months i.e. relief in payment of principal and/or interest of a term loan by deferring it for 6 months, deferring the interest charged on working capital for 6 months, the conversion of accumulated interest in to FITL (Funded

Interest Term Loan) and also directed the Banks that rescheduling of the above payments will not qualify as a default for declaring an account as NPA (Non Performing Assets) and for credit rating**.** [1]

Similarly likewise above since 1987, the RBI has issued some mandatory guidelines (for providing more time to repay the loan or recovery through rehabilitation guidelines) for rehabilitation of sick Micro and Small Enterprises, for those enterprises, who had lost their net worth upto 50% during the previous financial year or had failed to repay the loan, due to the circumstances beyond control. But the Banks did not comply with these guidelines in letter and spirit of the rehabilitation policy of the State and it is on record that millions of enterprises have been ruined by the Banks till date due to the negligence of legislature and judiciary.

The Micro and Small Enterprises (MSE's) are the backbone of the Indian economy and play a major role in the all around development of the country. But the main problem is, when a class of entrepreneurs, those take the risk and take the financial assistance from any financial institutions to make their dreams come true and if fails for only 90 days (i.e. become a Non-Performing-Asset), in repayment of the loan, even due to the circumstances beyond control, the banks start the coercive recovery proceedings immediately after 90 days under RDDBFI Act 1993, SARFAESI Act 2002 and IBC 2016, without appreciating that the RBI has issued the mandatory guidelines for recovery through rehabilitation against the sick/fail MSE's and the entrepreneurs find that there is no path of righteousness, to rehabilitate their means of livelihood, to repay their entire dues, to live their life with Dignity.

In nutshell, the present Banking system available in India for MSEs is archaic, despotic, destructive and suicidal to not only for the Banks but also for the Indian economy, because it does not focus on revival and rehabilitation of the needy enterprises, Hence, business failure in India is viewed as a stigma, which adversely impacts on the individual creativity and development in the country.

Contribution of MSE’s in Indian Economy

Micro and Small Enterprises play a very significant role in terms of balanced and sustainable growth of the economy by way of employment generation, development and contribution to export earnings. The MSE’s sector is a nursery of entrepreneurship, often driven by individual creativity and innovation. These units produce a wide range of items employing tradition to state-of-the-art technology. This sector contributes 30% of countries GDP, 45% of manufactured output and 40% of its Export. Further small enterprises are less capital intensive and generate more employment. It employs 40% of the country’s workforce, next only to Agriculture sector. [2]

Moreover more than 600 Lacs micro and small units are contributing towards the development of the country and more than 93% of total MSE sector are proprietary and partnership firms.

Brief of the development in the Rehabilitation Guidelines for MSE, issued by the RBI since 1987 to 2012

During the evolution of the guidelines for rehabilitation of sick MSE’s, issued by the RBI since 1987 to 2012, (in compare with SICA, 1985, which was for the rehabilitation of large and medium companies), the high level committees named A. Hasib committee (1986) [3], Kohli committee (2000), Chakrabarty committee (2007), and Prime Minister Task Force (2009) [2], observed about the arbitrariness, unfairness and unwillingness of banks in rehabilitation of the sick MSE's, therefore the RBI has strengthened these guidelines by making it non-discretionary in 2002 and mandatory in 2012 by issuing it under Section 21 and 35-A of Banking Regulation Act, 1949. The guidelines dated 01.11.2012 [6] was the ‘Magna Carta’, because first time, the three rights were given to the entrepreneurs of sick MSE's, i.e.

a) Viability status should be evidenced by a viability study.

b) Borrower got the right to represent the case before the next higher authority, if declared unviable.

c) Decision of the next higher authority should be informed in writing.

But even after the law laid down by the Constitution Bench of the Supreme Court in case of “Central Bank of India Vs Ravindra (2002) 1 SCC 367” about the power of the RBI U/s 21 and 35-A of Banking Regulation Act 1949 to issue binding direction in Public Interest; the Banks are getting the wrong advantage of the ambiguous language of the section 19 of the RDDBFI Act, 1993, Section 13(2) of the SARFAESI Act, 2002 and the respective sections of the IBC-2016 and started the coercive recovery measures instead of recovery through rehabilitation under the said rehabilitation guidelines, because there is no judicial pronouncement in favor of the said mandatory guidelines dated 01.11.2012 by the competent court. However after the said judgment of the Constitution Bench of the Apex Court these guidelines also create a legal right of ‘right to rehabilitation of means of livelihood’;

Definition of Sick MSE’s as per RBI since 2012

Since 1987 to 2012 the RBI has made changes in the definition of sick SSI/ MSE Units, in accordance with the recommendations of different Working-Groups, constituted for it. However As per the guideline for rehabilitation of sick micro and small enterprises (MSE’s) dated 1 November 2012, [6] issued by the RBI that:-

A Micro and Small Enterprise as define in the MSME Act 2006 may be said to have become sick, if

(a) Any of the borrowal account of the enterprise remains NPA for 3 months or more

OR

(b) There is erosion in the net worth due to accumulated losses to the extent of 50 % of its net worth during the previous accounting year

It is relevant to clarify here about the difference of above two definitions of being a unit as a sick that as per the definition (b), if a unit in continue in loss, it may be possible that it will take 365 days (1 year) to fulfill the parameter of said definition i.e. (b), “if the unit had started on 1st of April of previous accounting year.”

But the RBI also considered that it may also be possible due to circumstance beyond control, a unit can be lost its net worth in few months and consequently the account of the unit can be declared as NPA, therefore remaining NPA for 3 months or more (i.e. overdue of minimum of 180 days or more) is also a condition for being sick of a micro and small unit.

Moreover as per the above definition 'a' the three months are provided for conducting viability study after NPA and for enquiring about whether the unit is involved in willful defaults or not?

Therefore as per the definition 'a' an enterprise which is not a willful defaulter can be considered as sick after 3 months of declaring the account of the enterprise as NPA.

It is also relevant to mention hear that through above definition the RBI has also clarified to all Banks that in each and every case of NPA the Banks should not start the recovery through coercive measures but only in case of willful default, fraud and malfeasance.

As it also happened during the COVID-19 Pandemic crisis in India.

Modes of Recovery and meaning of recovery through rehabilitation:

There are three modes to recover of the loan form MSE's:

i. Recovery through coercive measures like RDDBFI Act and/or SARFAESI Act or any other coercive measures against the unit those are involved in willful defaults, willful mismanagements, diversification of funds etc.
ii. Recovery through One Time Settlement Scheme (OTS) against the units, which have failed and having the capacity to repay the loan at a lump sum amount.
iii. *Recovery through rehabilitation guidelines against the units* which have failed or are rendered sick and have lost their net worth due to circumstances beyond control.

Further, it is also relevant to submit here that the Banks do not rehabilitate any micro and small enterprise which does not take loan from the Bank. There is not any guideline which permits Banks to rehabilitate a sick micro and small enterprise, which did not take any loan from the Banks and which is in financial difficulties and Banks support them by granting loan to remove their financial difficulties.

Therefore, rehabilitation of sick MSE's is only a process of recovery (recovery through rehabilitation) to recover the entire loan of the Bank by helping and providing more duration of time to repayment of loan (Up to 7 to10 years) and further monetary support to a needy enterprise who has failed to repay the loan due to circumstances beyond their control.

Further the RBI has incorporated a 'right to recompense' [6] also in these guidelines, so that any sacrifice from the part of the bank can be recovered in future.

Moreover units with willful mismanagement, willful defaulters, diversion of funds, dispute among partners, etc are not eligible for rehabilitation or recovery through rehabilitation. It is humbly submitted that to ensure economic justice to the different MSE's, of different circumstances the RBI issued different

guidelines of recovery, in which recovery through rehabilitation is only for the MSE's, who have failed to repay the loan due to circumstances beyond their control.

Sick MSE's in India and 'Financial Terrorism 'of Banks since 1987 till date:

By abusing its power of law arbitrarily, contempt of the law and the law laid down by the Apex Court, and killing someone alive by flouting one's fundamental rights, is also called terrorism.

As the banks have done since 1987 to till date against the entrepreneurs of sick (failure in repayment of loan or have lost their 50% net-worth, due to circumstances beyond control) micro and small Enterprises by arbitrarily abusing the power of RDDBFI Act, 1993 and SARFAESI Act, 2002 without made compliance with the mandatory guidelines of RBI issued U/s 21 and 35-A Banking Regulation Act 1949, and have contempt with the law laid down by the Constitution Bench of the Apex Court in Central Bank of India Vs Ravindra 2002 (1) SCC 367.

In the course of its arbitrary actions the Banks have arbitrarily declared the accounts of MSE's as NPA, starting recovery through coercive measures without any opportunity of rehabilitation, illegally locked the properties and has auctioned them at zero valuation, without valuation and even auctioned the non-mortgaged assets and when an entrepreneur, after his financial failure, does a job somewhere for his livelihood, the bank also sends a notice of recovery from salary.

The entrepreneurs of India are still waiting for the justice. Moreover the Banks have also issued own circulars and guideline with respect to said Rehabilitation Guideline on priority basis. Further the Banks have also made commitments to follow these guidelines in the Code of Bank's Commitments to Micro and Small Enterprises [7] and the RBI has issued these Codes under Section 21 and 35-A of Banking Regulation Act.

Furthermore, as per the data given by different committees of RBI about 70% of total MSE [4] units have not take any loan from Banks and therefore no rehabilitation is available by Banks, in their any financial difficulties, therefore sick units recognized by the Bank are a meager percentage of the total MSE sector.

The data of rehabilitation of sick MSE by banks has been presented below for the ready reference:-

Table 1: Observations of Kohli Committee-2000 [4]

Year	Total No of SSI (In Lacs)	SSI Financed by Banks (In Lacs)	No of Sick SSI (In Lacs)	Unit Under Nursing/ Rehabilitation (In Nos.)	5% of 4
1	2	3	4	5	6 (in %)
1991	67.87	19.48	2.21	13224	6
1992	70.63	20.82	2.46	13289	5.4
1993 RDD BFI Act	73.51	22.46	2.38	12218	5.1
1994	76.49	23.88	2.56	11376	4.4
1995	79.60	25.71	2.69	10371	3.8
1996	82.84	27.24	2.62	11026	4.2

1997	86.21	28.57	2.35	10539	4.4
1998	89.71	30.14	2.22	13063	5.8
1999	93.36	31.21	3.06	12759	4.1

Note: The data of 15 years (given in Table 1, 2 and 3 collected from different committee reports of RBI and Press information Bureau of India) reveals that out of the total 42 Lacs sick units, only 175356 (4.2 %) units put under rehabilitation/ nursing and approx 40 Lacs units were ruined by the Banks.

Table 2: Observations of Chakrabarty Committee-2008 [5]

Breakup of viability position Sick Micro and small Units Outstanding (O/s) amount in (Rs.) Carore						
Year	Total sick units		Potentially viable		Units under nursing	
	unit	O/s	unit	O/s	unit	O/s
2006	126824	4981.13	4594	498.16	915	233.77
2007	114132	5266.65	42.87	427.46	588	268.93

Table 3: Press Information Bureau of India [8]

Year	Total No of MSE's (in Lacs)	MSE's Financed by Banks (in Lacs)	No of Sick MSE's	No. of Unit Under Nursing/ Rehabilitation	5 % of 4
1	**2**	**3**	**4**	**5**	**6 (in %)**
2013	467.54	112	220492	4489	2.04
2014	488.46	126	465492	15810	3.40
2015	510.57	138	534844	22185	4.15
2016	633.88	204	480280	23504	4.90

Further on an average every year 2.68 Lacs Micro and Small Enterprises are being ruined without any opportunity of rehabilitation since 1990 to 2016 and the data can be shocked if we add the number of units which were neither sick nor willful defaulters.

Financial failure of an Entrepreneur of MSE's is considering as a crime

A citizen in order to earn his livelihood becomes a doctor, engineer, scientist, public or private servant, self-employed, etc, or an entrepreneur and when a failure of a scientist in moon mission, failure of a doctor in treatment , failure of an engineer in machinery and failure of the public enterprise, which also includes huge public money and even life, not entitle for any recovery, then after taking a loan from Bank, failure of an entrepreneur for only 90 days (NPA), due to circumstances beyond control cannot entitle Banks for endless , lifelong recovery and also recovery from salary, which has a disproportionate impact on the fundamental rights of the entrepreneur.

To make his dreams come true, set-up an enterprise by contracting a loan from Bank against the mortgage of the property, cannot create an estoppel against the Fundamental Rights of an entrepreneur i.e. Right to Equality of Opportunity for means of livelihood, Right to Rehabilitation of Means of Livelihood, Right to Rehabilitation of Dignity and Right to Rehabilitation in Every Aspect of Life. An act (rehabilitation),

which is ethically and morally right, can never be legally wrong.

But due to the financial pollution of some willful defaulters the failure of the honest entrepreneurs of sick MSE's is considering as a punishable offense like criminal.

A comparison between the work done by the legislature in rehabilitation of sick Large and Medium enterprises and rehabilitation of Sick SSI or MSE's since 1986 to 2012 :

i. In 1986 for rehabilitation of near about (2000) Large and Medium Scale Sick units issued SICA Act [9]. But in 1987 mere a guideline was issued by the RBI, for the rehabilitation of sick MSE's, while in 1991 there were more than 2 Lacs Sick MSE in India)

ii. For conducting the viability study of Large and Medium Sick units, constituted separate forum as BIFR, which was separate form Bank. But Viability study of sick MSE's is always dependent on Banks authorities and it is also on record that the Banks are always reluctant to rehabilitate the sick MSE's and since 1987 to till date, the Banks did not conduct the viability study of sick MSE's honestly.

iii. Under the SICA Act 1985, the Large and Medium Sick units had a legal Right i.e. right to appeal (in case of rejection by BIFR) AAIFR and further to High Court and Supreme Court. But From 1987 to 2011 no evidence of viability study was required by the Banks and sick MSE had no right to appeal. Further no order from any court of law, that likewise SICA 1985, the said rehabilitation guideline also created a legal right in favor of rehabilitation of sick MSE.

iv. Incorporate power of Section 22 of SICA Act. To stop any coercive measures against sick companies during the pendency of rehabilitation proposal.

v. But from 1987 to 2011 no guideline issued by the RBI to make strict Compliance with the said rehabilitation guidelines, except in 2012,when the RBI issued it under section 21 and 35A of Banking Regulation Act 1949 and made it mandatory

vi. Section 22 of SICA was also a safeguard from RDDBFI Act 1993. But no clear safeguard from RDDBFI Act 1993, hence Bank misused it against Sick SSI Units.

vii. Till 2016 SICA also provided a limited safeguard against the SARFAESI Act 2002.

viii. But No clear safeguard against SARFAESI Act till 2011 and Banks misuse the ambiguous language of section 13(2) of the SARFAESI Act.

Further, as has been noted by Dr. Rakesh Mohan, Deputy Governor of RBI a small enterprise is like sapling or a baby has to be nurtured in the initial stages. The stress induced at the initial stage, if not managed promptly, leads to sickness and ultimately closure of the unit in most cases.

Conclusion

Failure of an entrepreneur in entrepreneurship is not a crime, but due to no recognition about the Legal and Constitutional Right i.e. "Right to Rehabilitation of Means of Livelihood" in favor of the entrepreneurs of micro and small enterprises in India and no verdict of Supreme Court about the mandatory

guidelines of RBI dated 01.11.2012, which creates a legal right of "Right to Rehabilitation of Means of Livelihood" after the judgment of the Constitution Bench in Central Bank of India Vs Ravindra, the vision of the Courts have been vague due to financial pollution of some willful defaulters, therefore the Banks are not ensuring the economic justice with the said entrepreneurs.

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An Evaluation of Forex Risk Management Strategies Adopted by Selected Indian Automobile Companies

Abstract

Foreign exchange risk management includes external and internal techniques of risk management such as forwards, futures, options, and swaps that are called as currency derivatives and internal techniques like netting, invoicing, leading and lagging. The firms with greater growth prospectus and more financial constraints are more inclined towards the use currency derivatives. The FX market offers various derivative instruments to mitigate the currency exposures such as currency forwards, futures, swaps and options. The current study aims at studying various Foreign exchange risk management techniques used in the Indian Automobile companies and its impact on foreign exchange gains/losses. For the purpose of this study foreign exchange cash flows arising out of exports and imports and foreign exchange gains/losses of the selected companies during 2017–2022 of 3companies chosen from the automobile industry are used. It is identified from the study that only two currencies—USD and EURO—holds position in the FX market while other currencies are being used minimally. It is also found that there are many currency derivatives available to the trading firms such as forwards, options, swaps and futures for hedging currency exchange risk. But amongst all these available techniques, forward contract is considered to be a most effective hedging tool and easier to understand.

INTRODUCTION

FOREIGN EXCHANGE

The foreign exchange market, also known as forex or FX, is a decentralized global market where currencies are traded. Forex is the largest financial market in the world, with an average daily trading volume of over $6 trillion. The foreign exchange market enables individuals, businesses, and financial institutions to exchange one currency for another, providing essential liquidity for global trade and investment. Forex is influenced by various factors such as political and economic events, interest rates, and market sentiment. Successful forex traders use various techniques to manage risks, such as hedging, leverage, and technical analysis. Understanding the foreign exchange market is essential for anyone who wishes to participate in global commerce and financial markets.

FOREIGN EXCHANGE RISK MANAGEMENT

Foreign exchange risk management refers to the strategies and techniques used by individuals, businesses, and financial institutions to manage the potential risks associated with fluctuations in currency exchange rates. Foreign exchange risk arises due to the variability of currency prices, which can impact the value of assets, liabilities, and cash flows denominated in foreign currencies.

Effective foreign exchange risk management involves identifying, measuring, and mitigating the risks associated with foreign currency exposure. Some common techniques used for forex risk management include hedging through forwards, options,

or futures contracts, diversification of currency holdings, and the use of financial derivatives.

Businesses engaged in international trade and investments are particularly vulnerable to foreign exchange risks, which can impact profitability and cash flows. Financial institutions such as banks and investment firms also face foreign exchange risks due to their exposure to international markets.

Managing foreign exchange risk is crucial for individuals and organizations that engage in cross-border transactions or hold investments denominated in foreign currencies. Effective forex risk management can help mitigate potential losses and ensure long-term financial stability.

FOREIGN EXCHANGE HEGING TOOLS

Foreign exchange hedging tools refer to various strategies and instruments that individuals, businesses, and financial institutions use to protect themselves against potential losses arising from fluctuations in currency exchange rates. The primary goal of forex hedging is to reduce or eliminate the risk associated with currency price movements and ensure more stable cash flows.

Some common forex hedging tools include forward contracts, options, futures contracts, and currency swaps. These instruments enable market participants to lock in a specific exchange rate for future transactions or to protect against unfavorable movements in currency prices.

Forward contracts are one of the simplest and most commonly used Forex hedging tools, allowing businesses and individuals to lock in a future exchange rate for a specific transaction. Options and futures contracts provide similar hedging benefits, enabling market participants to buy or sell currencies at predetermined prices.

Currency swaps are another commonly used hedging tool, allowing parties to exchange cash flows in different currencies while reducing their foreign exchange risks.

Overall, understanding and utilizing foreign exchange hedging tools can help individuals, businesses, and financial institutions better manage their forex risks, reduce potential losses, and ensure more stable cash flows.

INTRODUCTION OF INDIAN AUTOMOBILE SECTOR

The Indian automobile sector is one of the largest and fastest-growing industries in the country. It encompasses a wide range of products such as passenger cars, commercial vehicles, two-wheelers, and three-wheelers. The sector is a significant contributor to the Indian economy, providing employment to millions of people and contributing to the country's GDP.

The Indian automobile industry has undergone significant changes over the years, with several domestic and international players establishing a strong presence in the market. The sector is highly competitive, with companies continuously innovating and introducing new products to cater to the evolving needs and preferences of consumers.

The Indian government has also implemented several policies and initiatives to support the growth of the automobile sector. These include the National Electric Mobility Mission Plan, which aims to promote the adoption of electric vehicles in the country, and the Faster Adoption and

Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) scheme, which provides incentives for the purchase of electric and hybrid vehicles.

The Indian automobile sector has faced various challenges in recent years, such as the COVID-19 pandemic and disruptions in the global supply chain. However, the industry has demonstrated resilience and adaptability in navigating these challenges.

Overall, the Indian automobile sector is a vital part of the country's economy, providing significant employment opportunities and contributing to the growth and development of various related industries.

REVIEW OF LITERATURE

Basanna, P., & Vittala, K. P. (2019) According to the survey, only the USD and EUR dominate the forex market, with little to no use of the other currencies. It should be highlighted that business enterprises have access to a number of currency derivatives, including forwards, futures, options, and swaps, for hedging currency exposure. But out of all these methods, a forward contract is thought to be the most useful and simple to comprehend as a hedging instrument.

Gupta, A. K. (2016) the importance of managing foreign currency rate exposure and methods for doing so are examined in this paper. In terms of transaction risk (sensitivity of a firm's future cash flows from contracts denominated in foreign currency to changes), this article examines exchange rate exposure, currency rate, economic risk (sensitivity of firm's competitive position in the market to changes in exchange rate), and translation risk (sensitivity of firm's foreign denominated financial statements to changes in exchange rate). It lists the numerous phases involved in the process of managing foreign exchange risk. This research aims to analyse the various currency rate exposure hedging strategies available to Indian corporations.

Reeta, & Puri, K. (2016) The paper at hand is focused on exploring the opinions, knowledge, and overall attitudes of financial experts who work for various Indian companies with regards to the three different types of foreign exchange exposures. The paper also seeks to analyze whether there are any differences between banking and non-banking companies in how they use hedging instruments to manage currency risk or exposure. The research findings indicate that derivative products are commonly employed for managing financial risks, and the primary objective of using hedging instruments is to minimize the fluctuations in cash flows, thereby reducing volatility.

Dash, M. (2009) in this study, the significance of controlling foreign exchange rate exposure and approaches of doing so are discussed. This article looks at exchange rate exposure in terms of transaction risk (sensitivity of a firm's future cash flows from contracts denominated in foreign currency to changes). Sensitivity of the firm's foreign-denominated financial statements to changes in exchange rates), economic risk (sensitivity of the firm's competitive position in the market to changes in exchange rates), and translation risk. The multiple steps that make up the process of controlling foreign exchange risk

are listed. The goal of this study is to evaluate the different currency rate exposure hedging options available to Indian firms.

OBJECTIVES OF THE STUDY

Following are the objectives of the study:

1. To identify whether foreign exchange risk between the selected automobile companies remains same or not irrespective of firm's size

2. To analyse whether foreign exchange net exposure, foreign earnings and outgo wholly has an impact on foreign exchange gains/losses.

3. To identify whether currency derivatives choice is independent of factors like foreign exchange gains/losses, foreign earnings and outgo, revenue, net exposure, net profit and number of currency.

4. To determine whether foreign exchange losses can be minimized multiple currency invoicing and currency derivatives.

RESEARCH METHODOLOGY

The current study is based on analytical research as it analyses the foreign exchange losses encountered in automobile industry and use of hedging tools i.e. currency derivatives to minimize these exchange losses. The present study is based on secondary data and data is collected from the official websites and annual reports of the companies selected for the study. The data includes foreign exchange cash flows arising out of exports and imports and profitability of the selected companies from 2017-2018 to 2021–2022. The companies were chosen on the basis of market capitalization and companies selected are Maruti Suzuki, Tata Motors and Mahindra and Mahindra.

Statistical Tools Used

The researcher has used various statistical tools for analysis such as ANOVA (analysis of variances), F-test Descriptive statistics tools and multiple regression-based predictive analysis models. ANOVA is used to identify whether the foreign exchange exposure remained same or different between the companies chosen. Multiple regression analysis is used to identify whether the choice of derivative instrument is the function of currency denominated, exchange losses, exchange exposure, etc. to identify whether the derivative usage and multiple currency invoicing has reduced the exchange exposure.

HYPOTHESES

The researcher has set the following hypotheses in line according to the objectives designed for the present study:

H_{A1}: Foreign exchange risk between the selected automobile companies remains same irrespective of the firm's size.

H_{A2}: Foreign exchange net exposure, foreign earnings and outgo wholly has an impact on foreign exchange gains/losses.

H_{A3}: Currency derivative choice is independent of the foreign exchange earnings and outgo, net exposure, and number of currency exposed to.

H_{A4}: Foreign exchange losses can be minimized through multiple currency invoicing and currency derivatives.

RESULTS AND DISCUSSION

In this section, the total revenues, foreign exchange earnings and outgoes, net

exposure and impact of it's on the profitability and exchange gains/losses of the automobile companies selected for the current study are analyzed.

MARUTI SUZUKI

Maruti Suzuki hadan international operation denominated in JPY, USD and EURO and used only forwards, options and interest rate swaps contracts to mitigate the currency exposure. Table 1: depicts statistical results of foreign exchange operations of Maruti SuzukiLtd during the study period 2017–2022. Total foreign exchange earnings and outgo of the company for the selected period was `31, 7490crores and `465523crores, respectively. This has resulted in a net exposure of `-148033crore, which is 3.618% of total revenue earned by the company.An immense growth has also been seen in the exchange inflow at a CAGR i.e., Compound annual growth of percent at 15.18%,whereas exchange outflows are decline by 4.35%. The average net exchange loss was reported at `8.6 crores that is 0.014% of net profit. The exchange exposure remained unfavorable; also there was exchange loss which is due to translation of liabilities and assets of the company. Hence it needs protection from volatility of home currency.

MARUTI SUZUKI							
	YEAR	**TOTAL REVENUE**	**EXCHANGE INFLOW**	**EXCHANGE OUTFLOW**	**NET EXPOSURE**	**EX. GAIN/LOSS**	**NET PROFIT**
	2021-22	882956	110642	74672	35970	-309	37663
	2020-2021	703,325.00	45857	78,550.00	-32693	-621.00	42297
	2019-2020	756106	54,246.00	90,990.00	-36744	768	56506
	2018-2019	860203	52,186.00	128,027.00	-75841	85	75006
	2017-2018	819944	54559	93,284.00	-38725	34	77218
SUM		4022534	317490	465523	-148033	-43	288690
MEAN		804506.8	63498	93104.6	-29606.6	-8.6	57738
SD		74288.36536	26585.84297	21069.37863	40563.29552	519.364323	18170.04509
RANGE		179631	64785	53355	111811	1389	39555
MIN		703325	45857	74672	-75841	-621	37663
MAX		882956	110642	128027	35970	768	77218
DERIVATIES USED			FORWARDS, OPTIONS, SWAPS				
CURRENCY IN OPERATION		JPY, EURO, USD, GBP, SGD					

TATA MOTORS

Tata Motors is one of the leading global automobile manufacturing companies. Its diversified portfolio includes large range of cars, trucks, buses, sports utility vehicles and defense vehicles. In India Tata Motors is largest and the only Original Equipment Manufacturer (OEM) that offers wide range of smart, integrated and e- mobility solutions. The company had international operations denominated in USD, EURO, CNY, ZAR and GBP and used options, swaps and forward contract to hedge the currency risk. Table 2: depicts the statistical results of foreign exchange operations of Tata Motors during the study period of 2017 – 2022. Total foreign earnings and outgo of the company of the company for the period selected was 21263.61 crores and 14128.5 crores respectively. This resulted in a net exposure of 7135.1 crores that is 2.656% of total revenue earned by the company. The company showed a decline in the foreign earnings at compound annual rate of 5.872%, whereas exchange out go are decline at compound annual rate of 8.422%. The average net exchange loss of the company was reported at 439.07 crores which is 0.435% of net profit. Irrespective of the foreign exposure is positive for the company though it suffered exchange loss due to the depreciation of foreign currency.

TATA MOTORS							
	YEAR	**TOTAL REVENUE**	**EX. INFLOW**	**EX. OUTFLOW**	**N.E**	**EX. GAIN/LOSS**	**NET PROFIT**
	2021-22	47263.68	4006.6	1983.68	2022.92	-112.69	-1390.86
	2020-21	47,031.47	2181.66	2,159.77	21.89	83.44	-2395.44
	2019-20	43928.17	3,144.88	2,946.64	198.24	-182.32	-7289.63
	2018-19	69202.76	6,508.00	3,958.66	2549.34	-178.26	2020.6
	2017-18	61182.29	5422.47	3,079.76	2342.71	-49.24	-1034.85
SUM		268608.37	21263.61	14128.51	7135.1	-439.07	-10090.18
MEAN		53721.674	4252.722	2825.702	1427.02	-87.814	-2018.03
SD		10928.19806	1734.34	792.97	1218.34	110.1664245	3376.48
RANGE		25274.59	4326.34	1974.98	2527.45	265.76	9310.23
MIN		43928.17	2181.66	1983.68	21.89	-182.32	-7289.63
MAX		69202.76	6508	3958.66	2549.34	83.44	2020.6

DERIVATES USED	FORWARD, OPTIONS, SWAPS
CURRENCY IN OPERATION	GBP, USD, EURO, CNY, ZAR

MAHINDRA AND MAHINDRA

Mahindra and Mahindra had international operations denominated in EURO, JPY, BRL, CAD, USD and ZAR and used forwards, options and swap contracts to minimize the currency exposure. Table 3: depicts statistical results of foreign exchange operations of Mahindra & Mahindra Ltd during the period of study 2017 –2022. Total foreign earnings and outgo of the company for the chosen period were `13099.65 crores and 6651.6crores, respectively and this has resulted in a net exposure of `6448.05 crores, which is 2.568% of total revenue earned by the firm. The company has shown a growth in the exchange earnings at a compound annual growth rate (CAGR) of 5.63%, while outgoes are grown at 26.12%. The average net exchange gain was reported at `16.594 crores that is 0.104 percent of net profit. Both the foreign exchange exposure and foreign exchange gain remained favorable for the company. Hence, it requires protection against appreciation in the home currency.

	MAHINDRA & MAHINDRA						
	YEAR	TOTAL REVENUE	EXCHANGE INFLOW	EXCHANGE OUTFLOW	NET EXPOSURE	EX. GAIN/LOSS	NET PROFIT
	2021-22	57445.97	3294.13	2628.79	665.34	95.7	4935.22
	2020-2021	45,040.98	2000.03	1,096.54	903.49	30.28	268.66
	2019-2020	45487.78	2,237.45	1,096.90	1140.55	-16.48	1330.55
	2018-2019	53614	3,063.06	1,005.75	2057.31	28.61	4996.04
	2017-2018	49444.99	2504.98	823.62	1681.36	-55.14	4356.01
SUM		251033.72	13099.65	6651.6	6448.05	82.97	15886.48
MEAN		50206.744	2619.93	1330.32	1289.61	16.594	3177.296
SD		5327.9873	546.509446	734.3794831	570.9317	56.632822	2216.87434
RANGE		12404.99	1294.1	1805.17	1391.97	150.84	4727.38
MIN		45040.98	2000.03	823.62	665.34	-55.14	268.66
MAX		57445.97	3294.13	2628.79	2057.31	95.7	4996.04
DERIVATIES USED		FORWADS, SWAPS, OPTIONS					

CURRENCY IN OPERATION	USD, EURO,JPY, BRL, ZAR, CAD

HYPOTHESES TESTING

In this section, four hypotheses are tested using various statistical techniques such as ANOVA, multiple regression-based predictive analysis model, F-test, and descriptive statistics tools.

H_{A1}: Foreign exchange risk between the selected automobile companies remains same irrespective of the firm's size. Table 4 represents the results of ANOVA test for Ha1. It is disclosed from the table that the p-value is obtained 2.7 × 10-10 that is less than 0.05 and hence the alternate hypothesis is accepted and null hypothesis is rejected. It is therefore concluded from the results that foreign exchange risk among the selected automobile companies remains same irrespective of the firm's size.

ANOVA						
Source of Variation	***SS***	***df***	***MS***	***F***	***P-value***	***F crit***
Between Groups	1.8×10^{10}	2	9.4×10^{9}	499.7108	2.7×10^{-10}	3.885294
Within Groups	22666296757	12	1888858063			
Total	1.91×10^{11}	14				

H_{A2}: Foreign exchange risk has a bearing on the exchange gains/losses of the selected companies to the larger extent.

To test **H_{A2}**, the impact of net exposure (i.e., Foreign earnings - outgo) on exchange gains/losses of the selected automobile companies is observed and tested through multiple regression test and results are disclosed in Table 5. It is found from the table that R-value is obtained 0.3132 that indicates 31% degree of correlation between net exchange exposure and exchange gains/losses and R2 -value is obtained 0.0981, which indicates that the probable foreign exchange gains/losses can be estimated to the extent of 9.81% of foreign exchange risk of the Automobile companies. It is further found that the p-value of intercept is obtained as 0.739 and 0.318 for foreign exchange earnings and 0.283 for outgo and zero net exposure. Since the p-value is more than 0.05 for intercept, it implies that the test is significant with the reference of exchange risk having an impact on exchange gains/losses of the selected automobile companies. Hence the alternate hypothesis is rejected and null hypothesis is accepted. It is therefore concluded that the foreign exchange risk doesn't have the substantial bearing on profitability of selected companies. From the values obtained from the result, the following equation can be formulated:

$$Y = a + b_1 X_1 + b_2 X_2 + \ldots\ldots$$

Exchange gains/losses= 32.98+ foreign earnings x 0.0044 + outgo x 0.0034+ net exposure x 0

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.31322243
R Square	0.09810829
Adjusted R Square	-0.13554032
Standard Error	296.539606
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	114788.4	38262.8	0.652683	0.597709632
Residual	12	1055229	87935.74	-	-
Total	15	1170017	-	-	-

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-32.9797417	96.80085	-0.3407	0.739222
FE	-0.00447996	0.004299	-1.04198	0.317961
OUTGO	0.00343795	0.003058	1.124385	0.282839
NE	0	0	65535	0

H_{A3}: Currency derivative choice is independent of the foreign exchange earnings and outgo, net exposure, and number of currency exposed to.

To test **H_{A3}**, the multiple regression tests is applied. The results have been disclosed in Table 6. It is examined from the table that R-value is obtained 0.88 that indicates 88% degree of correlation among net foreign exposure and foreign exchange gains/losses and R2 -value is obtained 0.777 which concludes that the probable foreign exchange gains/losses can be identified to the extent of 77 % of net exposure of the automobile companies. It is also identified from the table that the p-value is obtained 0.390079 for intercept that is more than 0.05 and it is 0.32179 for net exposure, 0.890997 for exchange gain/loss and 0.000138 for number of currencies that are less than 0.05. As the p-value is greater than 0.05 for intercept, the alternate hypothesis is rejected and null hypothesis is accepted. Hence, it is concluded from the results that net exposure (N.E), exchange gain/losses, and the number of currencies used in international operation are dependent upon the currency derivative choice. . From the values obtained from the result, the following equation can be formulated:

$$Y = a + b_1 X_1 + b_2 X_2 + \ldots\ldots.$$

Choice of currency = -0.452 + net exposure x -3.34 + exchange gain/loss x 3.6 + currency used x 0.551

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.881905691
R Square	0.777757649
Adjusted R Square	0.717146098
Standard Error	0.259511401
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	2.592525	0.864175	12.83184	0.00065
Residual	11	0.740808	0.067346	-	-
Total	14	3.333333	-	-	--

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-0.452196389	0.505388	-0.89475	0.390079
NET EXPOSURE	-3.34971	3.23	-1.03746	0.32179
GAIN/LOSS	3.60339	0.000257	0.140251	0.890997
CURRENCY USED	0.551292783	0.096685	5.701969	0.000138

H_{A4}: Foreign exchange losses can be minimized through multiple currency invoicing and currency derivatives.

To test **H_{A4},** the multiple regression test is used and results are disclosed in Table 7. It is identified from the table that the R-value is obtained as 0. 159282 that implies that 15% degree of correlation found between number of currencies and number of derivatives. R2 value is obtained as 0.0253 that indicates that exchange losses can be mitigate through the usage of currency derivatives and multiple currency to the extent of 2.5%. It is also found from the table that the p-value is obtained as 0.907498 for intercept which is more than 0.05 and it is 0.691674 for number of currencies involved and 0.596563 for number of derivatives. As the p-value is more than 0.05 for the intercept, the alternate hypothesis is rejected and the null hypothesis is accepted. Hence, it is concluded from the results that foreign exchange losses cannot be minimized through multiple currency invoicing and currency derivatives. From the values obtained from the result, the following equation can be formulated:

$Y = a + b_1 X_1 + b_2X_2 + \ldots\ldots$

Exchange gains/losses= -58. 99 + currency used x – 79.21 + no. of derivatives x 183.622

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.159282
R Square	0.025371
Adjusted R Square	-0.13707
Standard Error	308.2657
Observations	15

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	29684.38	14842.19	0.156188	0.857109
Residual	12	1140333	95027.74		
Total	14	1170017			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-58.988	497.0635	-0.11867	0.907498
CURRENCY USED	-79.214	194.9643	-0.4063	0.691674
Derivatives	183.622	337.6882	0.543762	0.596563

FINDINGS AND SUGGESTIONS

Based on the analysis, the following findings have been identified and suggestions have been made accordingly.

• From the analysis, it is found that in total 9 currencies are being denominated in by the 3 selected automobile companies. However, all 3 companies have two common currencies i.e., USD and EURO. Thus, USD and EURO holds a position in the FX market while other currencies are being used minimally. Hence, it is concluded that companies operating at global level therefore must be prepared to face and handle any threat that may appear on account of fluctuations in the USD-INR parity.

• All 3 companies selected for the study used forward, options and swap contracts to minimize exchange risk none of the automobile companies have used futures contracts.

• It is identified from the study that foreign exchange risk between the selected automobile companies remains same irrespective of size of the firm.

• It is also observed that foreign exchange losses can't be minimized through multiple currency invoicing and currency derivatives.

•Also the exchange risk does not have bearing on foreign exchange gains/losses of the automobile companies.

• The exchange gains/losses, net exposure and number of currencies used in international operation are dependent currency derivative choice.

CONCLUSION

As examined from the study, there are many currency derivatives available to trading firms such as forwards, futures, options, and swaps for hedging currency risk. However, among all these hedging techniques, forward contract is considered to be most effective

hedging tool and easier to understand. Most of the private sector commercial banks provides alternate of only forward contract for hedging currency risk, but no other derivatives like option contract. The bankers are suggested to make particularly option contracts more popularized derivative instruments, by creating awareness and educating them. Though the small business firms can't afford, the large business firms are suggested to have a proper in house department to conduct research for handling foreign exchange currency exposures.

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Impact of Working capital Management over Profitability in Selected Indian Pharmaceutical Companies

Abstract

In recent times, globally it has been found that the pharmaceutical companies were one of those organizations that did not get affected severely or majorly during the crisis. The current study has been conducted to ascertain the effect of working capital management over the profitability of selected Indian Pharmaceutical Companies during the last five financial years i.e. from 2017-18 to 2021-22. The main objective of the study is to analyze the impact of working capital management on profitability of selected Pharmaceuticals Companies. For the purpose of attaining the abovementioned objective i.e. to ascertain the impact of working capital management over the profitability of companies, regression analysis has been used on different ratios of companies individually.

Key-words: Working Capital Management, Return on capital Employed, Pharmaceutical Companies etc.

Introduction

Recent economic, health and financial crisis has proved financial health important for every organization to maintain its sustainability. In the recent times, it has been noticed that to sustain in the present dynamic environment maintenance of sound working capital is important as working capital is a significant factor to determine the financial fitness of any organization. Every investor or lender prefers to know the management of working capital of the organization before investing. Working capital management provides the critical insight of financial capabilities and stability of an organization.

In recent times, globally it has been found that the pharmaceutical companies were one of those organizations that did not get affected severely or majorly during the crisis. The current study has been conducted to ascertain the effect of working capital management over the profitability of selected Indian Pharmaceutical Companies during the last five financial years i.e. from 2017-18 to 2021-22. For the purpose of this study, top five Indian pharmaceutical companies have been selected on the basis of market capitalization which are:

1. Sun Pharmaceuticals Industries Ltd.
2. Divi's Laboratories Ltd.
3. Dr Reddy's Laboratories Ltd.
4. Chemical Industries & Pharmaceutical Laboratories Ltd. (Cipla)
5. Torrent Pharmaceuticals Ltd.

Review of Literature

Addisu B. M. et al. (2023) have concluded that the profitability of commercial banks in Ethopia is dependent on its working capital management. Hence, it becomes important to keep rigorous attention on the factors working capital affecting the profitability to maintain the optimal structure.

Parwani A. et al. (2022) through this study have concluded that debt equity ratio and current ratio are significant factors to

maintain sustainable profitability of the cosmetic companies in India.

Ojha P. R. (2019) through this study has investigated the relative importance to the financial performance of Pukar International co. ltd. and has concluded that value for shareholders can be created by reducing the accounts collection period and by increasing accounts payment period.

Hassan U. O. et al. (2017) have established the effect of working capital management on the financial performance of the water processing companies in Puntland state of Somalia which resulted that out of four considered variables three variables have effect on the financial performance of these companies as cash conversion cycle and stock turnover ratio have positive effect while receivables turnover ratio has negative effect on return on assets of these companies.

Objective

The main objective of the study is to analyze the impact of Working Capital Management on Profitability of Selected Indian Pharmaceuticals Companies.

Research Methodology

For the purpose of attaining the above objective, following research methodology has been followed:

Sample Size

Top five Indian Pharmaceutical Companies according to the market capitalization has been taken for the study:

Pharmaceuticals Companies	**Market Capitalization**
Sun Pharmaceuticals Industries Ltd.	239,309.67
Divi's Laboratories Ltd.	83,807.10
Dr Reddy's Laboratories Ltd.	80,572.01
Chemical Industries & Pharmaceutical Laboratories Ltd. (Cipla)	73,087.49
Torrent Pharmaceuticals Ltd.	53,677.45

Data Type and Collection

The study's objective has been achieved through the use of secondary data. Data has been collected through research papers, periodicals, books, and annual reports that have been published on the company's website. Variables which are taken for study are:

<table>
<tr><td>Dependent Variable</td><td>Return on Capital Employed Ratio</td><td>Profitability</td></tr>
<tr><td rowspan="5">Independent Variable</td><td>Current Ratio</td><td rowspan="5">Working Capital Management</td></tr>
<tr><td>Cash Conversion Cycle Ratio</td></tr>
<tr><td>Stock Turnover Ratio</td></tr>
<tr><td>Receivables Turnover Ratio</td></tr>
<tr><td>Payables Turnover Ratio</td></tr>
</table>

Duration of the Study

Five financial years have been taken into consideration commencing from year 2017-18 to 2021-22.

Tools of analysis

For the analysis of data and testing of hypothesis Ratio Analysis and Regression Analysis has been used.

Results and Discussion

This analysis has shown the following results:

Current Ratio

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Sun Pharma	0.76	0.84	1.07	1.45	0.96
Divis Labs	7.11	5.58	5.16	5.63	7.10
Dr Reddys Labs	1.91	2.90	2.42	2.40	2.23
Cipla	2.91	4.00	3.45	3.79	4.41
Torrent Pharma	1.22	1.21	1.13	1.60	1.68

While analyzing the impact of independent variable current ratio over dependent variable return on capital employed, it has been found that in most of the companies, current ratio does not have any major significant impact on return on capital employed still one company was found i.e. Dr. Reddy’s Laboratories Ltd. in which current ratio has significant impact with p-value 0.010937 (which is >0.0.5) on return on capital employed of the company.

Cash Conversion Cycle Ratio

Cash Conversion Cycle = DIO + DSO – DPO

Where: DIO stands for Days Inventory Outstanding, DSO stands for Days Sales Outstanding and DPO stands for Days Payable Outstanding.

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Sun Pharma	5.22	5.34	5.28	5.45	5.51
Divis Labs	18.42	18.13	18.27	17.45	17.38
Dr Reddys Labs	9.44	9.31	8.87	9.79	10.54
Cipla	10.67	9.79	9.37	8.58	7.89
Torrent Pharma	12.85	10.31	11.26	13.26	13.23

While analyzing the impact of cash conversion cycle ratio over return on capital employed, it has been found that cash conversion cycle ratio in all the companies do not have any significant impact on return on capital employed ratio as the p-value of results of all the five regression analysis is <0.05. It implies that cash conversion cycle ratio is not an important factor of working capital management to optimize the profitability of companies.

Stock Turnover Ratio

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22

Sun Pharma	4.22	3.69	4.76	4.04	1.40
Divis Labs	2.98	2.93	3.04	3.33	1.47
Dr Reddys Labs	5.04	5.27	5.41	1.30	1.10
Cipla	3.75	4.31	4.19	4.50	0.88
Torrent Pharma	3.27	4.24	4.09	0.83	0.82

Based on the available literature, stock turnover ratio was also considered as an important factor of working capital management. While analyzing the impact of stock turnover ratio over the return on capital employed, it was found that stock turnover ratio of these companies does not have any significant impact on the return on capital employed ratio as the p-value of all the regression results was >0.05. Hence, stock turnover ratio of these pharmaceutical companies was proved to be insignificant in improving its profitability.

Payable Turnover Ratio

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Sun Pharma	1.10	0.91	0.99	1.09	1.02
Divis Labs	0.95	1.08	1.09	1.12	1.01
Dr Reddys Labs	1.15	0.98	1.01	1.11	1.10
Cipla	1.09	0.96	1.04	0.96	0.95
Torrent Pharma	1.17	0.85	1.07	0.97	0.98

Based on the available past literature, payable turnover ratio was also considered as an important factor of working capital management to optimize the profitability of companies. While analyzing the impact of payable turnover ratio over the return on capital employed, it was found that payable turnover ratio of these companies does not have any significant impact on the return on capital employed ratio as the p-value of all the regression results was >0.05. Hence, payable turnover ratio of these pharmaceutical companies was proved to be insignificant in improving its profitability.

Receivable Turnover Ratio

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22
Sun Pharma	1.32	0.97	1.1	1.01	0.79
Divis Labs	1.05	1.07	1.08	1.06	1.19
Dr Reddys Labs	0.97	0.93	1.11	1.23	1.09
Cipla	1.09	1.15	1.05	0.92	0.77
Torrent Pharma	1.04	1.1	1.05	1.01	0.99

Recent literature has proved receivable turnover ratio an important factor of working capital management to enhance the profitability of companies. But in the present study, this ratio has been proved to be insignificant as it’s no significant impact could be found over the return on capital

employed ratio in the selected pharmaceutical companies.

Conclusion

Working Capital Management is an important indicator of financial fitness of any organization as it indicates the financial soundness and position of the organization. But, through the results of the present study it has been found that working capital management of the selected pharmaceutical companies does not have any significant impact over the profitability of these companies still the management of working capital is important for effective and efficient running of every type of business organization.

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Products & Services Offered By Stock Holding Corporation of India Limited

Abstract
SHCIL is the largest custodian and depository participant in the country with assets under custody of over Rs. 30 lac crore. It is the dominant player in the domestic institutions custodian segment, enjoying a market share of 36%. It holds the position of one of the largest retail depository participants in the country, with a client base of about 6.1 lakhs. Aggregate value of transactions settled daily of over Rs. 5,000 crore. Participated in promotion of various financial institutions in India, including NSE, where it holds 5% stake. Only agency appointed by the Govt. of India for providing e-stamping services across India; currently serving 17 states. SHCIL is the fastest growing Document Management business with banks, FIs, courts and regulators as clients and an order book of Rs. 250 Crore.

Key-words: Depository Participant, Custodian Segment, Financial institutions& Document management business.

Introduction

Stock Holding Corporation of India Limited (SHCIL) is an Indian custodian and depository participant, based in Mumbai, Maharashtra. SHCIL was established in 1986 as a public limited company and is a subsidiary of IFCI. It is also responsible for e-stamping system around India. It is also authorized by Reserve Bank of India as Agency Bank to distribute and receive Govt. of India savings/relief bond 2003 along with nationalized banks.

Vision & Mission of SHCIL

Mission

"To be a world class 'technology driven' and 'client focused' market leader in financial and technical services"

Vision

"To become one stop shop for all financial Services"

SHCIL Values

•Safety and efficiency of operations is a hallmark of SHCIL.
•Professionalism and integrity.
•Customer first.
•Relationship building.
•Commitment to quality irrespective of asset size

Corporate Structure

The Stock Holding Corporation has three subsidiaries:

- SHCIL Services Ltd (stock brokering services)
- StockHolding Document Management Services Limited (provides end-to-end document storage and digitization services)
- StockHolding Securities IFSC Limited (A SEBI registered intermediary operating out of GIFT IFSC, Gandhinagar, Gujarat, and catering to Eligible Foreign Investors (EFIs), FPIs and NRIs from FATF compliant jurisdictions as of now)

Products and Services offered by SHCIL

Stock Holding offers numerous financial services along three main branches: personal, corporate and custodial services.

1. **Personal services**

Some of the personal services they offer include:

- Demat Account
- Insurance
- Mutual Funds
- NPS (Retirement)
- GOI Bonds (Government of India)
- IPOs
- Stock Holding

2. **Gold Rush**

A platform that allows users to buy gold online and it is one of the only two ways to do so in India.

3. **Corporate services**

- Demat services for business
- CSGL services (government bonds)
- Trading accounts
- NPS accounts
- Bullion (gold and silver)

4. **Custodial services**

Custodial services include any safekeeping, administration, transaction and further activities done on behalf of a company by its custodian, and include:

- Fund accounting
- FDI (Foreign Direct Investment)
- Company Valuation
- Vaults
- Customized Reporting
- Electronic and Physical Safekeeping Services
- Clearing and Settlement Services

(A) PRODUCTS OFFERED BY SHCIL:

1. Add Shares

1. SHCIL arranges loan against DEMAT shares.
2. Tie-up with reputed banks which offer you the most competitive interest rates in the market.
3. You can use the shares in your free account as collateral and take a loan from any of our empanelled banks.
4. SHCIL completes your documentation and Processing and gives you a cheque within 48 hours of application.
5. This is a pure value add to your depository account with us.
6. Add shares are available at SHCIL centers in all major cities.

2. Share Trading

1. An Even after payments have been made we have to wait patiently to see those shares reflected in the DEMAT account. With the odd surprise of not seeing them at all which you cannot discount!
2. As your depository participant SHCIL assures you safe delivery of shares every time you buy on the exchange. We have lined up a panel of reputed brokers who process your orders on priority.
3. Our positions as the clearing corporati ons of leading stock exchanges ensures smooth and sure credits in your account.
4. An initial advance and timely replenishments into the purchase advance account take care of the payment for your purchases.
5. Go through the detailed EQUIBUY procedure and you will see how EQUIBUY in a one stop shop for your share purchases.

6. EQUIBUY instruction from you gets the shares credited into your account the next day of payout.
7. Payment for your purchase made from a running account called purchase advance into which you remit an initial advance of Rs. 1000 and maintain a minimum balance of Rs. 250 at all times.
8. Choose one or more brokers from a list of 77 Brokersempanelled with SHCIL . Registration with broker is not necessary if you are already registered under any of our other product schemes.
9. Purchase on BSE or NSE.

3. Fund Invest

1. Fund invest is a basket of financial products rangingfromfixedincome securities lik e fixed deposits, infrastruture bonds an dcapital gain bonds to variable income securities like initial public offers (IPOs) of equities and mutual funds.
2. It is an attempt to offer financial products that that Cater to the various investment needs of our esteemed clients. An effort to guide the investor to a product portfolio that best suits his risk-return profile.
3. Applications for investments can be sourced from any of the SHCIL offices. Apart from guiding our investors to pick up the right combination of investment instruments we help them in 'after-sales' service by acting as an interlocutor between the investor and the issuer of the securities. SHCIL is an AMFI registered mutual fund advisor (ARMFA).
4. At present, SHCIL is distributing schemes of 28 different **mutual funds**. All these funds offer a wide variety of investment option depending on the risk appetite of the investor. Some of the major categories are:
5. Debt funds: The debt funds have the m andate of investing primarily in debt papers.
6. Equity funds: The equity funds have the mandate of investing primarily in equities.
7. Balanced funds: The balanced funds ha ve the mandate of investing both in equities as well as debt papers. Capital gain bonds come under 54EC capital gains bonds, where the investors get exemption from capital gain tax. These are 'on-tap' issues. At present, SHCIL is distributing capital gain bonds of rural electrification corporation, National housing bank, small industries development bank of India a nd national highway authority of India. Infrastructures bonds are issued by ICICI bank and IDBI, with section 88 as the main feature.

8. Private placements: debt papers issued for private placement with structural obligations by the state and central government typically targeted for trusts and provident funds are distributed by stock holding.

9. Fixed deposits: fixed deposits with high investment rating and issued by blue-chip corporate are distributed by us. These papers generally offer 50 to 100 basis points

more than bank fixed deposits of comparable period. At present, we are distributing IDBI SUVIDHA fixed deposits and HDFC fixed deposits.

10. **Initial Public Offer:** IPOs offered by blue-chip corporate can be subscribed from stock holding. Issues recently distributed by us are Canara Bank, Allahabad Bank, Bharti Tele and I-Flex.

4. Gold Bonds:

1. Savings bonds are issued by RBI on behalf of government of India in the following series:8.0% taxable bonds: These bonds are held in electronic form in an account called bond ledger account (BLA).
2. Bond ledger accounts can be opened and operated with RBI designated Receiving offices. SHCIL has been designated as one of the receiving offices by RBI for this purpose. Subscriptions for savings bonds can be submitted at any of our branches. Savings bonds being sovereign in nature are absolutely safe and an attractive investment option in the current volatile market situation.
3. The following categories can subscribe to savings bonds:

5. Insurance

1. An insurance policy compensates you against the financial impact that can arise following loss, damage of destruction of your property (such as home or vehicle) or your health or life.
2. A fundamental principle of insurance is to put you in the same financial position after a loss or accident that you enjoyed before the loss. This is relatively easy with repair or replacement of (say) a car, but is much more difficult with the loss of life.
3. Theinsurancepolicyisacontractandlikeany contract contains clauses and conditions. Claims aresettled in accordance with the conditions detailed in the policy.
4. SHCIL distributes life insurance policies of LIC and non-life insurance policies of NIA.
5. The service is available at any of over 100 branches of SHCIL.

6. Stock Direct

Stock direct has changed the way you look at trading insecurities. From your desktop you can now send instructions for buying/selling shares. A three way hands shake between leading brokers, national and international banks and SHCIL is the crux of stock direct. Stock direct India’s first online trading platform was launched in1999. Today stock direct is the most secure online trading platform which combines encryption technology digital signature features. A few clicks will seamlessly check your funds andsecurity positions, route the order to the broker of your choice and do the necessary fund and share movements for you.

1. A single instruction enables you to combine your trading, fund and shares transfer with SHCIL taking care of the settlement.
2. Trade from home on the internet with floppy containing stock direct software.

3. Security measures based on encryption and digital signature technology make your online deals 100% secure.
4. Open a purchase advance account with SHCIL to facilitate your fund transfers.
5. Choose the exchange to trade from BSE and NSE.

7. New Pension Scheme (N.P.S)

SHCIL offers pension fund administration services to pension fund trusts. The pension fund scheme administered by the trust could be Defined benefit or a defined contribution scheme. For both the scheme types, SHCIL offers the entire range of services that include design, development and maintenance of a customized pension.

Services Offered to a Defined Contribution Scheme

1. Coordination with all client locations/branches for receipt of monthly contribution data of members.
2. Pension contribution account maintain ed at individual member level.
3. Reconciling contributions with remittance amounts.
4. Settling members claim on separation.
5. Liaoning with insurer for purchase of annuity.
6. Handling disbursements to members on commutation.
7. Distribution of earnings to eligible members, annually.
8. Providing account statement to members annually.
9. Maintain books of accounts of the trust.
10. Handling audit and filing tax returns.
11. Services offered to a defined benefit scheme
12. Service records of members maintained in electronic form.
13. System generated pension orders, uniquely referenced and supported by necessary documents.
14. Tracking pension orders during the peri od of survival of member.
15. Updating of software to incorporate cha nges taking from time to time in pension rules and regulations.

(B) SERVICE OFFDERES BY SHCIL

1. Custodial Services:

SHCIL provides firstrate custodial services t o India's leadingFinancial Institutions, Insur ance Companies, Mutual Funds,Foreign Institutional Investors (FII's), Banks, Indian and Foreign Venture Capital Companies, Funds, PF Trusts & Corporate.

SHCIL's core competence in custodial busin ess spans 18 years, with a dedicated pool of trained and experienced professionals working literally round the clock using state-of-the-art computer systems and world class technology. SHCIL maintains dedicated communication channels, well connected to client institutions, stock exchanges, clearing houses and deposi tories, thus maintaining process and quality leadership.

As a custodian entrusted with sizable assets, SHCIL is continuously leveraging its scale and capabil ities to help its clients mitigate risk and optimize efficiencies with greater control.

2. Post Trading Services:

SHCIL has specially trained personnel handling thousands of trade instructions involving large values on sophisticated

systems usingdigital signature on STP (straight through processing) systems, ensuring smooth trade confirmations to stock exchanges.

SHCILprovides the choiceof multiple STP service provides enabling competitive advantage of efficient settlements. SHCIL seamlesslymonitors trades and ensures failed trade management with reporting and resolution of mismatches, etc. At SHCIL, a client has the flexibility of settlement of funds through a wide panel of banks having RTGS facility.

3. Settlement Services:

Most of the institutional trades are settled through the clearinghouse of the stock exchanges. As a custodian, SHCIL facilitate estimably settlement of funds and securities. Funds are collected deposited from/to client and settled with the clearing houses.

Most of the institutional trades are settled in the depository mode. For the institutional segment alone, SHCIL has a unique clearing code on the two principal stock exchanges and separate DPM units on both NSDL and CDSL.

This ensures smooth settlement of transactions on both exchanges/depositories, based on thedeliverables and receivables received by them for eachsettlement. Daily verification of settlements (auction/normal)facilitates smooth reconciliation of settlements of client's trades and mitigates systemic risk.

For debt market deals SHCIL ensures timely movement of securities and funds. For the occasional delivery and receipt of securities in the physical mode, SHCIL ensures prompt scrutiny, processing and lodgment of securities with the respective company/ registrar and transfer agent, with the objective of final transfer to the purchaser, with objections handling if needed. SHCIL also ensures that delivery of physical securities to exchanges is handled strictly as per exchange regulations.

4. Physical Custody (Vault) Services:

1. SHCIL has extensive vault capacity with state of the art technology.
2. This includes tracking with bar-coding techniques. Certificates are held in customized, fire resistant 'modular sliding storage units', with automated location tracking and logs with tight security. There are
3. Comprehensive document tracking and storage systems in place to hold investments in physical and electronic form.
4. SHCIL tracks each and every security in the custody with absolute ease and tracks the status of investments at any point of time. Other security features include circuit TV, smoke detectors and fire extinguishers which are installed in the premises. SHCIL relies on audit trials and physical reconciliation continuously to reconfirm validity of systemic data. SHCIL also periodically seeks reconfirmations from internal and statutory audit firms for adherence to the established best practices.

5. Institutional DP Services:

SHCIL has installed dedicated DPMs (depository participant modules) on both the

depositories, viz. NSDL and CDSL.A dedicated institutional DP team at SHCIL addresses your need for all core DP services like account opening and maintenance, conversion of physical holdings into electronic form, settlement of trade instructions, re-materialization, repurchase and pledge instructions, providing of holding and transaction statements and daily reconciliation of clients holdings.

SHCIL also provides special services like el ectronic credit andcorporate action follow up, reporting of saleable holding positions required by many fund managers, monitoring of CP redemptions, prepayments and providing customizer reports like put/call forecasts, logical holdings and non equity holding reports.

6. Asset Services:

SHCIL has dedicated teams to handle the various aspects of asset servicing. The corporate actions team ensure s forecast of allcorporate actions and benefit s accruing on a client's holding, timely collection of monetary and non mone tary benefits and cover all activities relating to a corporate event like calculation of entitlements, reconciling with companies/registrars prior to due date, collection of monetary corporate actions from the premises of company/registrar and transfer of same to clients.

In case of any shortage, active follow-up with eacg company. Customized repoting to clients on the status of corporate actions is done periodically. The primary markets team takes care of applications on behalf of clients for primary market issues, calculat es the Entitlements, follows up for allotment or refunds and sends customized reports to clients. The dedicated redemptions team trac ks the payouts of various debt instruments held by SHCIL's clients and monitors put/call options. This team ensures timely monetary Collection anddeposits and keeps track of th e outstanding amounts and reinvestments.

At the heart is support provided by a highly specialized 'Databank" team, which is unique to SHCIL. This team tracks over 8500 companies, over 12000 issued securities, 250 registrars besides all relevant information available in all leading stock exchanges and depositories. The team ensures prompt availability of information on all corporate announcements, ISIN listings, etc. to the custodial teams and the information solely is for the benefit of SHCIL's clients. Thus SHCIL is equipped to handle all types of instruments, listed on the BSE and NSE, money market instruments like CPs and CDs, all kind of debt instruments and unlisted securities.

7. Client Relationship Management:

Every institutional client is assigned to an ex perienced clientrelationship manager who as sistsin resolving special issues relating to the client. Over and above the services offered we have a premium offering called ADVAIT, an integrated, web based, online reporting system which provides a single window access to in stitutional reports with enhanced security features.

8. Depository Participant Services:

Our depository participant services address your individual investment needs. With a parentage of leading financial institutions and insurance majors and a

proven track record in the custodian business, we have reiterated our p ast success byestablishing ourselves as the fi rst ever and largest depository participant in India.

Form a tentative foray in 1998 into the individual investor arena to servicing around seven lakhs accounts, we have endeavored to constantly add and innovate to make business a pleasure for you. Our networked branches ensure we are available where you lookout for us.

Fourteen depository participant machines (D PMs)connected to NSDL and seven connected to CDSL ensure fast and direct processing of your instructions.

Our customer-centric account schemes have been designed keeping in mind the investment psyche of our clients. Your DP account with us takes care of your depositor y needs like dematerialization, re-materialization and pledging of shares. Matching of your scanned signature on every debit instruction with a digitally scanned original in our system makes all your trading transactions absolutely secure. A proactive backup of backup of tour instructions prior to execution in the depository makes us oblivious to system crashes.

At SHCIL we place a very high premium on client reporting.

Periodic statements sent to you keep you inf ormed of your current account status. Dedicated customer care lines manned by trained staff answer your queries on DEMAT/trades/holdings. The latest in client response at SHCIL is Interactive V oice Response (IVR) system for round the system for round the clock information on your account. Registration on our website, SHCIL interactive, enables you to check your account related information, stock market reports and statistics, corporate benefits declared by companies, real time quotes of scripts on BSE and NSE and so much more online.

Conclusion

SHCIL has been able to maintain a lead posi tion in a highly competitive environment which is no small achievement by any standards. To further augment its client base and maintain the lead SHCIL has decided to leverage on the strength to identify new products which would enable it to achie ve the desired objectives. Being an important constituent of the capital market the future of SHCIL is extricable intertwined with the fortunes of the capital market in general and the stock market in particular.

SHCIL is aware of the need to utilize the existing infrastructure and exploit its strength to the maximum. It has already introduced several innovative products like sell-n-cash, cash-on-pay out, loans against Demat shares, fund invest, mutual fund distribution, Equibuy, etc. the objective is to provide the investors different investment options and financial products all under the same roof – a one stop shop for all financial products and services.

SWOT ANALYSIS

STRENTH	**WEAKNESS**
1. Wide coverage through out the country.	1. Lack of aggressive marketing.

2. Promoted by 7 financial institutions. 3. Largest account holders. 4. Largest custodian. 5. Catering to Indians as well as NRIs and FIIs. 6. One stop shop for all financial solutions. 7. Advanced system network.	2. Improper billings. 3. Expensive 4. Less investment in advertising.
OPPORTUNITIES 1. E – Broking. 2. Acquisition of smaller DPs. 3. Collaboration with banks. 4. New products.	**THREAT** 1. Promoters have become competitors with strong brand equity. 2. Increased cost as perceived by customers. 3. Fluctuating market conditions affect the business.

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External links

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Corporate Social Reporting Disclosure Practice in India: With Special Reference to Metal Companies

Abstract

Corporate Social Responsibility (CSR), which refers to giving back to society in order to enhance brand perception, has been used by businesses for many years. Economic, legal, ethical, Social, and environmental obligations are the five main considerations that corporate organizations take while going for the CSR. According to Estes, Corporate Social Reporting of internal and external data pertaining to an entity's influence and the contribution of its products and services, including initiatives aimed at improving the firm's overall environment. This Study has helped to understand the financial performance of selected metal industry, also assisted in creating the relationship between different companies regarding corporate social reporting practices & financial performance of metal industry. For attaining the objectives, this study covers top five Metal Companies (Coal India Ltd., Tata steel Ltd., Vedanta Ltd., Hindalco Ltd., and JSW Steel Ltd.) from NSE's NIFTY METAL Index on the basis of Market Capitalization as on 01.04.2015. This research also develops an appropriate econometric model for analyzing the Corporate Social Reporting disclosure practices and their impact on financial performance using the statistical software packages such as MS- Excel, STATA and SPSS will be used for processing and analyzing the data. The findings of the study report that hypothesis proposed for the study have a significant relationship. The selected companies have made various required disclosures during the selected time period. Still, they are ignoring important disclosures and are not consistent in many of them. Thus, consistent disclosures should be made by the companies.

Introduction

The disclosure of a company's attempts to uphold social obligations is referred to as corporate social reporting. The social costs and benefits are used to assess how well social obligations are being fulfilled. The stakeholders anticipate better information disclosures and increased corporate involvement. The main driver for firms disclosing the effects of their corporate decisions is the rise in expectations. The rise in expectations is reflected in corporate social reporting (CSR). CSR is a method of informing the public about how company decisions affect society. It is a procedure for asking for a new mandate from society with the goal of defending the existence of a business unit and its operations. CSR satisfies societal expectations and conveys them. CSR is viewed as an umbrella term that includes several concepts of business-society connections and is synonymous with them **(Matten and Moon, 2008)**.

According to Estes, CSR is the measurement and reporting of internal and external data pertaining to an entity's influence and the contribution of its products and services, including initiatives aimed at improving the firm's overall environment.

There are five areas where reporting is concerned, according to Chakraborti –

- Connection to the public and society.
- Connection with customers.

- Partnership with suppliers.
- Interaction with staff.
- Connection to the natural world.

There are four main aspects of corporate social performance in line with reporting, according to The National Association of Accountants Committee on Accounting –

- Human resource development.
- Community development.
- Contributions to the environment and physical resources.
- Contribution of a good or service.

Review of Literature

Masoud, (2023) analyzed how characteristics of the audit committee (AC) influence the disclosure of CSR by publicly traded Kuwaiti companies in their annual reports for the year COVID-19. The study found that KSE-listed firms disclosed the least about their CSR activities (mean CSR index of 39%), suggesting that companies lacked motivation to disclose such activities during the COVID-19 pandemic. Insights on the rules of governance, evaluation of CSR disclosure in annual reporting practices, and bolstering the role of oversight and transparency of ACs are provided, all of which are of interest to policymakers concerned with shareholders, regulators, financial analysts, investment analysts, and managers.

Ebaid, (2023) investigated how sustainability reporting influences the financial success of companies which are trading on the Saudi Stock Exchange, one of the world's fastest-growing stock exchanges. The findings of this study can only be extrapolated so far beyond the specific social and economic setting in which it was conducted the Saudi stock exchange between 2016 & 2019 and even then, perhaps only to listed companies operating in a similar social and economic setting. Without resorting to market-based metrics, the study also relies on accounting-based measures for financial performance.

Hamed R.S. et al., (2022) identified the acquiring of mandatory corporate social responsibility (CSR) regulations in the United Kingdom (UK). Explored whether the adoption of new CSR regulations affects the quality of firms' CSR reporting and explored whether quality depends upon a firms' characteristics. The sample comprises of 402 FTSE All-Share Index firms listed on the LSE Main Market from 2009 to 2017. Study finds that those firms' characteristics, especially corporate governance and the firm size, improves quality of CSR reporting. The findings revealed that committing to CSR could substantially benefit stakeholders, who should be better informed about the firms' CSR performance by improving the quality of reporting. This factor could influence the investors' beliefs and market valuations, which might subsequently guide firms in investment decisions.

Indrasari et al., (2021) analyzed and identified the ways adopted to implement corporate social and environmental reporting (CSER) and their influence on organizational performance. This study examines the annual reports of corporations listed on the Indonesia Stock Exchange (IDX) and involved in ecologically responsible business operations as a sample. Secondary data was collected from annual and sustainability reports of firms and,

primary data have been collected through interviews. The findings revealed that firms disclosed their social and environmental actions using both reactive and proactive techniques. The research also looked at the effect of such reporting on the financial and non-financial results of the firms under consideration.

Sharma R.B. et al., (2020) investigated the discloser practices of CSR in manufacturing companies and service sector also analyzed the sector wise performance of the companies with specific financial indicators which are, Return on Assets (ROA), Return on Equity (ROE), Return on Long-term Fund (ROLF) and Return on Capital Employed (ROCE). The findings conclude that ROE has a positive correlation with CSR Score of Service Sector Companies together with ROA and ROCE have a strong and positive correlation also there is a significant association between CSR Score and the Financial Performance of Service Sector Companies.

Research Methodology

Source of Data

Secondary data have been collected from the annual reports as well as other reports published by different organisation.

Sample Size

For attaining the objectives, this study covers Top five Metal companies from NSE Nifty Metal Index on the basis of Market Capitalization as on 01.04.2015. These samples companies are- (a) Coal India Ltd., (b) Tata steel Ltd., (c) Vedanta Ltd., (d) HindalCo Ltd., and (e) JSW Steel Ltd.

Period of Study

We have collected data for the period from 2015-16 to 2021-22.

Factors

- Human Resource Disclosure (14)
- Community Development Disclosure (8)
- Environmental Disclosure(11)
- Product or Service Disclosure(5)

Research Model

This research paper tests one models using Shapiro-Wilk Testas statistical tool in IBM SPSS Statistics software, in order to examine Corporate Social Reporting Disclosure Practices. These models are described in the following section:

The model intends to examine the Corporate Social Reporting Disclosure Practices of Metal Companies. Hypothesis shall be tested in this model, which are as follows Corporate Social Reporting Disclosure Index (CSRDI) for all the selected companies is normally distributed.

Objective of the study

To examine the Corporate Social Reporting Disclosure Practices of Metal Companies.

Overall CSRDI Analysis

1. Normality test:

For Normality Test i.e., to determine whether the CSRDI of selected companies, i.e., Coal India Ltd, Tata Steel Ltd, Vedanta Ltd, Hindalco Ltd and JSW Ltd is normally distributed or not, researcher has used Shapiro-Wilk Test.

Table 5.1: CSRDI of Selected Companies

Particulars	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22

Coal India Ltd	87	89	85	89	89	93	93
Tata Steel Ltd	93	83	83	87	89	93	93
Vedanta Ltd	70	74	79	81	83	85	87
Hindalco Ltd	74	77	77	79	77	74	81
JSW Ltd	79	85	81	81	83	87	87

(Source: Researcher's calculation)

Table 5.2: Tests of Normality for the selected companies

Companies	Mean	Variance	Std. Deviation	Skewness	Kurtosis	Shapiro-Wilk	p-value
Coal India Ltd	89.29	8.571	2.928	0.109	-0.666	0.900	0.330
Tata Steel Ltd	88.71	20.571	4.536	-0.355	-1.923	0.828	0.076
Vedanta Ltd	79.86	36.810	6.067	-0.654	-0.571	0.951	0.736
Hindalco Ltd	77.00	6.333	2.517	0.264	-0.351	0.909	0.388
JSW Ltd	83.29	9.905	3.147	0.037	-1.684	0.913	0.420

(Source: Researcher's calculation)

By using the Shaipro-Wilk test for normality (table 5.2) it is found that all the companies have the significance value more than 0.05 (level of significance) therefore the null hypothesis has been accepted. Thus, it is concluded that the CSRDI of selected companies is normally distributed. The Disclosure index has been complied in the table 5.1 and average disclosure has been found for each company. On the basis of this average the selected companies have been ranked in table 5.3. Highest rank has been given to the company with higher average CSRDI and so on. As per the results CIL has been ranked 1st, followed by Tata Steel. While JSW Ltd. has been ranked 3rd followed by Vedanta Ltd. and Hindalco Ltd. at ranks 4th and 5th respectively.

Table 5.3: Average CSRDI for the Selected Metal Companies

Particulars	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	Average	Rank
Coal India Ltd	87	89	85	89	89	93	93	89	**1**
Tata Steel Ltd	93	83	83	87	89	93	93	88	**2**
Vedanta Ltd	70	74	79	81	83	85	87	80	**4**
Hindalco Ltd	74	77	77	79	77	74	81	77	**5**
JSW Ltd	79	85	81	81	83	87	87	83	**3**

(Source: Researcher's calculation)

Table 5.4: ANOVA Test

CSRDI	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	813.029	4	203.257	12.365	0.000
Within Groups	493.143	30	16.438		
Total	1306.171	34			

(Source: Researcher's calculation)

In the above table 5.4, ANOVA Significant value is .000, F (4,30) = 12.365, (p =0.00) which is less than 0.05 level of significance indicating there is significant difference in Corporate Social Reporting Disclosure Index of selected Metal Companies. To determine which metal firms were significantly different, a post hoc test was used

Table 5.5: Post-hoc Test (Tukey HSD)

Company code	N	Subset for alpha = 0.05	
		1	2
Vedanta Ltd	7	77.00	
Hindalco Ltd	7	79.86	
JSW Ltd	7	83.29	83.29
Tata Steel Ltd	7		88.71
Coal India Ltd	7		89.29
Sig.		0.105	0.133

(Source: Researcher's calculation)

In the above table 5.5, Post hoc test, has been applied for knowing each group significantly different between each other in Homogeneous subsets. In column 1 Vedanta Ltd, Hindalco Ltd., JSW Ltd and Tata Steel Ltd. do not significantly different among them. Similarly in column 2, Coal India Ltd and Tata Steel Ltd. has no significant difference between them. Although Vedanta Ltd, Hindalco Ltd, JSW Ltd, Tata steel Ltd significantly making difference with Coal India Ltd.

Conclusion:

This Paper comprised analysis and interpretation of corporate social reporting of selected metal companies in India. For this purpose, a checklist has been prepared for the period 2015-2016 to 2021-2022 based on Section 135 of the Companies Act, 2013. Researcher has first done Normality test using Shapiro-Wilk Test to see whether the Corporate Social Reporting Disclosure Index CSRDI is normally distributed or not and then have applied ANOVA for analyzing significant difference in Corporate Social Reporting Disclosure Index as per the nature of data. An overall analysis is done to see whether there is any significant difference in Corporate Social Reporting Disclosure Practices among the selected Metal Companies by using post-Hoc test.

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Analysis of Reliance Industries Limited Financial Statement

Abstract
The researcher took the decision to select one of India's largest corporations in a field that has seen recent growth that is quick, as well as a corporation where leaders like Mr. Dhirubhai Ambani, or rather are present. Researcher tried to analyses the financial performance of the selected company which is Reliance Industry Limited operates through this paper. Researcher goal is to comprehend how the company's financial aspects are influencing its decision-making through a thorough financial study. Later, Researcher tries to assess the various ratios in order to understand how they have affected the Reliance Industries Limited's performance during the previous two years. The past two years' financial statements such as balance sheet, Income Statement, and Cash flow statement are located and examined.

Key-words: Income Statement, Cash Flow Statement, Ratios, Balance sheet.

Introduction

Financial statements are those documents that provide details about an organization's finances. At the conclusion of the accounting period, they report the companies financial situation and profitability. To the extent that balance allows, they offer some incredibly useful information. The profit and loss account displays the results of operations over a specific time period in terms of the revenues realized and the expenses incurred over the course of the year. The balance sheet reflects the financial position as of a specific date in terms of the structure of assets, liabilities, and owners' equity, among other things. As a result, the financial statement offers a concise overview of a company's operations and financial status.

Objective of study

To analyse the financial performance of Reliance Industries Limited and to know the weakness and strength of the company and also to forecast the prospects of the company and thereby assisting the financial predictor to take different decisions regarding the working and operations of the company.

Review of Literature

1. S. Shonakshi, et al. (2023) the researcher found that in this research paper selected company is facing difficulty in taking decision of distributing dividend, bonus debenture issue. The researcher also found that company financial position is not so good.
2. K. Rimaben Amrutlal, (2021) the researcher indicates that there is a negative relationship between the earning per share, return on capital employed and environmental accounting. And positive relationship between dividend per share, net profit per share and environmental accounting.
3. S. Anil, M. Sandhiya (2021) the researcher resembles that the selected company is investing in various products Reliance India Limited shows high profit

and has low risk. The research also shows why price value increase and decrease during the period.

4. R. Ramanan, (2017) in this study research found that company financial position was good during period 2010-11 and found adverse impact on the financial position of the company in financial year 2021-13. But during the period financial position of the company become favourable during the time.

Research Methodology

This study is descriptive and analytical in nature. For the purpose of data collection secondary data has been used in the study. Secondary data has been collected from the annual reports of Reliance Industries Limited and the website of the selected company. Two financial years have been considered for the study which is from 2020-22. For the purpose of the sample Reliance Industries Limited has been selected.

Analysis

Analysis of Reliance Industries Limited Income statement 2020-22:

Year		2020-21	2021-22	% Change
Net Sales	Rs. (In Crore)	2,76,181	4,63,067	67.7
Other Income	Rs. (In Crore)	14,818	13,872	-6.4
Total Revenue	Rs. (In Crore)	2,79,887	4,59,247	64.1
Gross Profit	Rs. (In Crore)	1,11,625	1,38,395	24.0
Depreciation	Rs. (In Crore)	9,199	10,276	11.7
Profit before Tax	Rs. (In Crore)	27,212	46,786	71.9
Tax	Rs. (In Crore)	7702	(4732)	-161.4
Profit After Tax	Rs. (In Crore)	31,944	39,084	22.4
Gross profit Margin	%	39.88	30.14	-
Net Profit Margin	%	11.5%	8.4%	-

Interpretation of Reliance Industries Limited Income statement-

- During the year from 2020-21 to 2021-22 Operating Income increased by 67.7% which shows Reliance Industries Limited is more profitable in 2021-22 than 2020-21.
- The Reliance Industries Limited operating profit increased by 24% from 2020-21 to 2021-22 during the fiscal. Operating profit margins decrease from 39.88% in year 2020-21 to 30.14% in year 2021-22 which shows that Reliance Limited India in not more effective in there management.
- Depreciation charges increased by 11.7% and finance costs decreased by 3.8% from 2020-21 to 2021-22 during the fiscal. Operating profit margins decrease from 39.88% in year 2020-21 to 30.14% in year respectively.
- Other Income decrease by 6.4% from 2020-21 to 2021-22.
- Net profit for the year grew by 22.4% from 2020-21 to 2021-22.

Analysis of Reliance Industries Limited Balance Sheet 2020-22:

Year		**2020-21**	**2021-22**	**% Change**
Net Worth	Rs. (In Crore)	5,48,156	6,45,127	-17.7
Current Liabilities	Rs. (In Crore)	2,01,787	2,00,982	-0.4
Long- term Debt	Rs. (In Crore)	1,97,403	2,06,165	4.4
Total Liabilities	Rs. (In Crore)	3,99,190	4,07,147	2.0
Current Assets	Rs. (In Crore)	2,10,719	2,22,398	5.5
Fixed Assets	Rs. (In Crore)	6,62,954	6,56,276	-1.0
Total Assets	Rs. (In Crore)	8,73,673	8,78,674	0.6

Interpretation of Reliance Industries Limited Balance Sheet-

- The Reliance Industries Limited Current liabilities from 2020-21 to 2021-22 decrease by 0.4%
- Long term debt of the selected company increase from Rs. 1,97,403 crore in 2020-21 to Rs. 2,06,165 crore in 2021-22, which shows an increase of 4.4% ; this shows that Reliance Industries Limited restrict their monthly cash flow.
- Current asset increase from Rs. 2,10,719 crore to Rs. 2,22,398 crore in 2021-22 which witnessing that increase of 5.5% ; this shows that Reliance Industries Limited is able to meet their short term requirements.
- Fixed assets show a decrease of Rs. 6,62,954 crore to Rs. 6,56,276 or by 1%.
- Overall total Liabilities show an increase of 2% and overall total Asset shows an increase of 0.6%.

Analysis of Reliance Industries Limited Cash Flow Statement 2020-22:

Year		**2020-21**	**2021-22**
Cash Flow From Operating Activities	Rs. (In Crore)	(512)	67,491
Cash Flow From Investing Activities	Rs. (In Crore)	74,257	(45,315)
Cash Flow From Financing Activities	Rs. (In Crore)	(76,657)	(6,035)
Net Cash Flow	Rs. (In Crore)	(2912)	16141

Interpretation of Reliance Industries Limited Cash Flow Statement-

- Cash flow from operating activities of Reliance Industries Limited increases during the period from 2020-21 to 2021-22 from Rs. (512) crore to Rs. 67,491crore. This show sthat Reliance Industries Limited is generally considering being good financial health.
- Cash flow from investing activities of Reliance Industries Limited decreases from Rs. 74,257 crore to Rs. (45,315) crore in year 2021-22. The decrease means that Reliance Industries Limited made some poor decision of investing or purchases, it is warning sign for the company.

- Cash flow from financing activities of Reliance Industries Limited stood Rs. (6,035) crore which shows an improvement of 92.13%. This resembles that more money is coming in the Reliance Industries Limited than flowing out of the money.
- Net Cash flow of Reliance Industries Limited stood Rs. (2912) crore to Rs. 16141 crore and increase in 654.3%.This shows that in 2021-22 Reliance Industries Limited shows a sign of good financial performance and management.

Analysis of Key Ratios 2020-22:

Year		2020-21	2021-22	% Change
Current Ratio	X	1.04	1.11	6.7
Debtors Turnover	X	47.92	50.28	4.9
Interest Coverage	X	0.38	1.22	221.1
Debt to equity Ratio	X	0.47	0.41	(12.8)
Return on Asset	%	9.0	7.5	(16.7)
Return on Equity	%	8.9	9.8	10.1

Conclusion

Current ratio of the company show that company can easily pay off their debts. Debtor turnover ratio indicates that customer of the selected company is paying back on time and the company is good at collecting. Interest Coverage ration resembles that Reliance Industries Limited is good and is able to fulfill their financial obligations.

Debt to equity ratio shows that company has less debt. Return on Assets ratio shows that company is not able to earn more of the money while investing. Return on Equity ratios indicate that Reliance Industries Limited in not using their capital effectively and efficiently invested by their shareholders. Profit of the companies during the period.

Reliance Industries Limited overall performance from 2020-21 to 2021-22 is good. Profit of the company also increases during the period. Company's long term solvency position also increased which is good that means company is showing better long term health in year 2021-22. The Reliance Industries Limited upholds low liquidity to attain the high profitability during the year. The Company distributes dividend every year to their shareholders.

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Fifth (5th) Industrial Revolution and “Legal and Constitutional Rights” of the Entrepreneurs in India:

Volume-1: Equality of Opportunity for Means of Livelihood and Judicial Deficiency

Abstract:
The present paper deals with the Legal and Constitutional Rights of the Entrepreneurs of India where we have tried to identify the vision of the Judiciary, which has been vague because of the ‘financial pollution’ of ‘willful default’ of some enterprises.
Here, we have tried to enlighten the vision by the separation of the legal and constitutional rights of the entrepreneurs of medium & large enterprises (wheat) and micro & small enterprises (MSE’s) (green) because both of them are interdependent for their growth and have an equal importance in the socio-economic system and cannot be grow with discriminate curing.
By this separation we identifies that this discrimination is completely against the Article-14 and 16 of the Constitution which provides the right to ‘equality of opportunity for means of livelihood’ to every citizen of India.
Considering this discrimination we have raised three questions of law for the said Constitutional rights of the entrepreneurs of MSE’s with some supporting grounds and facts.
So, the need of the hour is to clear the vision of the judicial system by enlightening the path of righteousness and to strengthening the roots of Constitutional rights of the Entrepreneurs of MSE’s by solving the questions of law.

Key-words-5th Industrial revolution, socio-economic system, micro and small enterprises, financial pollution, financial terrorism, commercial wisdom, conscious wisdom, conscious reform

I. Introduction:

It is on record that even after the law laid down by the Constitution Bench of the Apex Court in, *Central Bank of India Vs Ravindra 2002 (1)SCC 367*, **[1]** about the power of the RBI under Section 21 and 35-A of the Banking Regulation Act 1949,**[3]** to issue binding directions, to be followed by the Banks, in public Interest; when the Entrepreneurs of sick/ fail Micro and Small Enterprises (MSE’) approaches for the enforcement of his legal right, i.e. *‘Right to Rehabilitation of Means of Livelihood’*, **[4]** provided by the RBI, under the guideline, *‘Rehabilitation of sick Micro and Small Enterprises dated 01.11.2012’,* **[5]** (issued U/s 21 and 35-A of Banking Regulation Act), then he finds that, due to the 'Financial Pollution’ of some ‘Willful Defaulters', the vision of the Judiciary has been vague to identify the truth that the proceedings of the recovery through coercive measures (under RDDBFI Act and SARFAESI Act)**[8]**,**[9]** cannot be initiated at first instance against the sick MSE’s without complying with the procedure made in the said Guideline.

The Hon'ble Courts has always neglects that the said Entrepreneurs always rightly invokes the Writ Jurisdiction under Article 226, **[17]** as per the law laid down by the

Apex Court in *Sardar Associates Vs. Punjab & Sind Bank, 2009 (8) SCC 247.***[2]**

It has never been decided by any competent Court, that how 'failure of an entrepreneur is a crime' even when every failure entrepreneur has a natural right to be rehabilitated in every aspect of life i.e. 'right to rehabilitation of means of livelihood', 'right to equality of opportunity for means of livelihood', 'right to rehabilitation of dignity and status' etc.

II. Contribution of MSE's in Indian Economy:

The MSE's sector is a nursery of entrepreneurship, often driven by individual creativity and innovation. It plays a very significant role to balanced and sustainable growth of the economy by way of employment generation, development and contribution to export earnings.

These units produce a wide range of items employing tradition to state-of-the-art technology. This sector contributes 30% of countries GDP, 45% of manufactured output and 40% of its Export. About 600 Lacs MSE's are contributing towards the development of the country and more than 93% of total MSE's sector is proprietary and partnership firms.

Further small enterprises are less capital intensive and generate more employment. It employs 40% of the country's workforce, next only to Agriculture sector.

III. Separation of the Wheat (medium & large enterprises) and the Green (micro & small enterprises) by the Legislature:

In 1986 a *'conscious decision'* was taken by the government of India and small scale industrial (SSI) units had been kept outside of the purview of the Sick Industrial Companies Act, (SICA) 1984. **[6]**

Through this '*conscious direction'* a guideline was issued and it was made imperative upon Banks to conduct viability study for the determination of the financial health of the units that, whether the unit is viable or unviable and for recovery of loan form unviable units some coercive (RDDBFI Act, SARFAESI Act) and non coercive measures (One Time Settlement Guidelines) were issued. But for recovery of loan from sick viable units only rehabilitation guideline (providing more time to repayment) was issued by the RBI.

Through the passage of time since 1987 to 2012 the government of India issued many directions to RBI for strengthening these guidelines and in 2002, RBI made these guidelines non-discretionary and in 2012, made it mandatory by issuing it Under Section 21 and 35-A of Banking Regulation Act 1949.

In SICA Act 1985 two separate forums i.e. BIFR and AAIFR were constituted for conducting the viability study of sick medium and large units. But in the rehabilitation guideline it was only for the Banks to conduct the viability study for declaring a unit a viable or non-viable for starting the recovery proceedings either under coercive measures or under rehabilitation measures as per the guideline.

A. Negligence by the Banks:

The Banks have always neglected to follow the procedure mentioned in the said mandatory guidelines since its origin in 1987, which has been resultant in to genocide of the entrepreneurship in India

and it is on record, Banks have ruined millions of enterprises without conducting the viability study as per the step wise procedure mentioned in the guideline dated 01.11.2012.

B. Negligence by the Judiciary:

Because due to lack of judicial pronouncement about the legal and constitutional rights of the Entrepreneurs and particularly about the said mandatory rehabilitation guideline, likewise SICA Act 1984 for which the Apex Court in *KSL and Industries Vs Arihant Thread Ltd. & Ors. Dated 27.10.2014,* **[14]** declared that Section-22 of SICA Act shall prevail over the recovery through RDDBFI Act., **[8]** through which an entrepreneur of sick medium and large enterprises can avail his legal right under the said law if the Banks did not comply with the same.

But

In the matter of micro and small enterprises (MSE's) it has been made imperative upon Banks to comply with the said mandatory guidelines and if the Banks did not comply with the said guideline, the MSE's have no other options except to approach the Hon'ble High Court by filing the Writ Petition under the law laid down by the Apex Court in *Sardar Associates Vs Punjab Sind Bank 2009 (8) SCC 247* whereby the Apex court has been declared that the Writ can be issued for the enforcement of the mandatory circulars/ guidelines of RBI issued *Under Section 21 and 35-A of Banking Regulation Act 1949.*

Therefore, we have raised three questions of law for the determination of the said Legal and Constitutional rights. These are being presented considering the fact that that the proceedings of the recovery through coercive measures under RDDBFI Act and SARFAESI Act cannot be initiated at first instance against the sick MSE's without complying with the provisions mentioned in the said mandatory guideline.

IV. Definition of Sick MSE's as per RBI since 2012:

Since 1987 to 2012 the RBI has made changes in the definition of sick SSI/ MSE Units, in accordance with the recommendations of different Working-Groups, constituted for it. However As per the guideline for rehabilitation of sick micro and small enterprises (MSE's) dated 1.11.2012, issued by the RBI that:-

A Micro and Small Enterprise as define in the MSME Act 2006 **[7]** may be said to have become sick, if

(a) any of the borrowal account of the enterprise remains NPA for 3 months or more **or**

(b) there is erosion in the net worth due to accumulated losses to the extent of 50 % of its net worth during the previous accounting year

It is relevant to clarify here about the difference of above two definitions of being a unit as a sick that as per the definition (b), if a unit in continue in loss, it may be possible that it will take 365 days (1 year) to fulfill the parameter of said definition i.e. (b), "if the unit had started on 1st of April of previous accounting year."

But the RBI also considered that it may also be possible due to circumstance beyond control, a unit can be lost its net worth in few months and consequently the account of

the unit can be declared as NPA, therefore remaining NPA for 3 months or more (i.e. overdue of minimum of 180 days or more) is also a condition for being sick of a micro and small unit.

Moreover as per the above definition 'a' the three months are provided for conducting viability study after NPA and for enquiring about whether the unit is involved in willful defaults or not?

Therefore as per the definition 'a' an enterprise which is not a willful defaulter can be considered as sick after 3 months of declaring the account of the enterprise as NPA.

It is also relevant to mention hear that through above definition the RBI has also clarified to all Banks that in each and every case of NPA the Banks should not start the recovery through coercive measures but only in case of willful default, fraud and malfeasance. As it was also happened during the COVID-19 pandemic crisis in India.

IV. Stepwise procedure for the sick MSE's as per Rehabilitation guideline since 2012:

According to the said mandatory guideline, before starting the recovery through coercive measures (under RDDBFI Act 1993 or SARFAESI Act 2002 or any other coercive measure) the Bank have to follow the following procedure lay down in the said guideline dated 01.11.2012 at Para 7(Seven).

> **"***7.The decision on viability of the unit should be taken at the earliest but not later than 3 months of becoming sick under any circumstances. The following procedure should be adopted by the banks before declaring any unit as unviable.*
>
> **a.** *A unit should be declared unviable only if the viability status is evidenced by a viability study. However, it may not be feasible to conduct viability study in very small units and will only increase paperwork. As such for micro (manufacturing) enterprises, having investment in plant and machinery up to Rs. 04.00 Lacs and micro (service) enterprises having investment in equipment up to Rs. 02.00 Lacs, the Branch Manager may take a decision on viability and record the same, along with the justification.*
>
> **b.** *The declaration of the unit as unviable, as evidenced by the viability study, should have the approval of the next higher authority/ present sanctioning authority for both micro and small units. In case such a unit is declared unviable, an opportunity should be given to the unit to present the case before the next higher authority. The modalities for presenting the case to the next higher authority may be worked out by the banks in terms of their Board approved policies in this regard.*
>
> **c.** *The next higher authority should take such decision only after giving an opportunity to the promoters of the unit to present their case.*

d. For sick units declared unviable, with credit facilities of Rs.1 Crore and above, a Committee approach may be adopted. A Committee comprising of senior official of the bank may examine such proposals. A Committee approach will improve the quality of decision as collective wisdom of the members shall be utilized, especially while taking decision on rehabilitation proposals.

e. Decision of the above higher authority should be informed to the promoters in writing. The above process should be completed in a time bound manner not later than 3 months.

8. The banks may, however, take decision in cases of malfeasance or fraud without following the above procedure."

So considering the above step wise procedure given above (mentioned in the said guideline 01.11.2012) it is very clear that in case of sick micro and small enterprises (Sick MSE's) the recovery can never be started in first instance before the declaration of the unit as non-viable.

But at present the Banks by pass this said mandatory guideline.

Hence it is very clear that the recovery against the sick MSE's are completely illegal and they have no other choice except to approach the High Court in Writ Jurisdiction under Article 226 of the Constitution as the case is about the violation of the legal and Constitutional rights against the entrepreneurs.

V. Comparison between the work done by the legislature in rehabilitation of sick Large and Medium enterprises and rehabilitation of Sick SSI or MSE's since 1986 to 2012:

For rehabilitation of large and medium enterprises		For rehabilitation of micro and small enterprises
(i)	In 1986 for rehabilitation of near about (2000) Large and Medium Scale Sick units issued SICA Act	In 1987 for the rehabilitation of sick SSI issued the guideline. (In 1991 there were more than 2 Lacs Sick SSI in India)
(ii)	For viability study constituted separate as BIFR, separate form Bank.	Viability study was dependent on Bank authorities.
(iii)	Right to appeal in case of rejection by BIFR and further to High Court and Supreme Court	From 1987 to 2011 no evidence of viability study was required and no right to appeal. Further no order from any court in favor of rehabilitation of sick SSI.
(iv)	In corporate power of Section 22 of SICA Act. To stop any coercive measures against sick companies during the pendency of rehabilitation proposal.	From 1987 to 2011 no mandatory guideline (no such strict direction) about follow-up of rehabilitation guidelines except in 2012 the RBI issued it under section 21 and 35A under Banking Regulation Act 1949.

(v)	Section 22 of SICA was also safeguard from RDDBFI Act 1993	No clear safeguard from RDDBFI hence Bank misuse it against Sick SSI Units.
(vi)	Till 2016 SICA also provided a limited safeguard against the SARFAESI Act 2002.	No clear safeguard against SARFAESI Act till 2011 and Banks misuse the ambiguous language of section 13(2) of the SARFAESI Act.

Considering the above comparison now the question arises why the legislature did not enact an Act also in favor of the Rehabilitation of Small Scale Units likewise SICA till date, while since 1987 to 2012 many working group or committees was constituted to look out into the matter of rehabilitation of sick small scale industries and the working groups also time to time recommended more strengthening of the rehabilitation guideline.

But no one recommended for issuing an Act in favor of the rehabilitation of Sick SSI or MSE's likewise SICA.

Whether it can be considered as negligence on the part of the legislature or something else?

Hear we submits that there is no question on the wisdom of the legislature which knew that micro and small scale industries are the nursery of entrepreneurship, where the young entrepreneurs learn about the A,B,C,D (basics) of entrepreneurship. Further, as has been noted by Dr. Rakesh Mohan, Deputy Governor of RBI a small enterprise is like sapling or a baby has to be nurtured in the initial stages. The stress induced at the initial stage, if not managed promptly, leads to sickness and ultimately closure of the unit in most cases. Thus, there is a strong possibility of sickness setting in small enterprises at the initial stages and the Banks should more carefully monitor the working of small enterprises in the initial stages.

Hence for the financial development of the young entrepreneurs, the responsibilities are put upon the Banks and the legislature made the guidelines through RBI, to be followed by Banks. Considering the Banks as a financial guardian of such young entrepreneurs the legislature from time to time directed Banks through RBI and based upon such directions the Banks also made their own mandatory guideline to be followed by the branch officials.

Hear we would like to concentrate on the fact that that the ***Banks are right to be duty bound*** to follow such mandatory guidelines issued by its Head Office and RBI.

Moreover, if there is any breach in duty of the Bank to follow its own guideline or the mandatory guidelines issued by RBI, in favor of young entrepreneur of sick MSE's, the Court should decide it in the light of the principles of Natural Justice and the Constitution of India under Article 14, 19 and 21, **[11]** because the 'public sector Bank is a State owned entity under Article-12 of the Constitution' and it is duty bound to follow the policies or the guidelines made by the State in favor of the needy MSE's.

Also during this COVID-19 Pandemic, the RBI has issued some mandatory guidelines dated 27.03.2020, 23.05.2020 and 06.08.2020, in public interest,**[13]** particularly also for eligible micro, small and medium enterprises and has given relief

in terms of providing moratorium for 6 months i.e. relief in payment of principal and/or interest of a term loan by deferring it for 6 months, deferring the interest charged on working capital for 6 months, the conversion of accumulated interest in to FITL (Funded Interest Term Loan). Further rescheduling of the above payments will not qualify as a default for declaring an account as NPA (Non Performing Assets) and for credit rating.

This exercise has done by the RBI because the circumstances were beyond the control of the said entrepreneurs in repayment of their loans to the Banks.

But if the Bank does not follow the above guidelines then all the accounts are under the category of NPA as, they have made the default of 90 days overdue norms and ready for recovery through coercive measures under SARFAESI Act, 2002 and/ or RDDBFI Act, 1993 and /or IBC, 2016, because there is no change in Section 13(2) of the SARFAESI Act, Section 19 of the RDDBFI Act and the respective Section of IBC-2016.

Further Bank cannot bypass these guidelines because rehabilitation is the most essential element in a welfare state to ensure economic justice and the logical corollary of Article 21 of the Constitution, for this very purpose the RBI has issued said rehabilitation guidelines under Section 21 and 35-A of Banking Regulation Act 1949, as they have statutory force and do not depend upon the commercial decision and wisdom of Banks as upheld by the Apex Court in Central Bank of India Vs. Ravindra, 2002 (1) SCC 367, and reiterated in Sardar Associates v. Punjab & Sind Bank, 2009 (8) SCC 257:-

At Para 36

"The question as to whether the guidelines issued by the Reserve Bank of India are binding or not now stands concluded by reason of a Constitution Bench Judgment of this Court in Central Bank of India Others [(2002) 1 SCC 367] in the following terms:

> *'55... (5) The power conferred by Sections 21 and 35-A of the Banking Regulation Act, 1949 is coupled with duty to act. The Reserve Bank of India is the prime banking institution of the country entrusted with a supervisory role over banking and conferred with the authority of issuing binding directions, having statutory force, in the interest of the public in general and preventing banking affairs from deterioration and prejudice as also to secure the proper management of any banking company generally. The Reserve Bank of India is one of the watchdogs of finance and economy of the nation. It is, and it ought to be, aware of all relevant factors, including credit conditions as prevailing, which would invite its policy decisions. RBI has been issuing directions/circulars from time to time which, inter alia, deal with the rate of interest which can be charged and the periods at the end of which rests can be struck down, interest calculated thereon*

and charged and capitalised. It should continue to issue such directives. Its circulars shall bind those who fall within the net of such directives. For such transaction which are not squarely governed by such circulars, the RBI directives may be treated as standards for the purpose of deciding whether the interest charged is excessive usurious or opposed to public policy'."

At Para 47

"The Appellate Tribunal in passing its order followed the dicta laid down in Constitution Bench judgment in Central Bank of India (supra), wherein it was held that:

'.....RBI directive have not only statutory flavor, any contravention thereof or any default in compliance therewith is punishable under Sub-Section(4) of S. 46 of the Banking Regulation Act,1949'

VI. Recovery through rehabilitation shall prevail over recovery through coercive measures:

A. Because the RBI has issued this guideline U/s 21 and 35 (A) of Banking Regulation Act, 1949 and has made it mandatory to be followed by Banks, to follow a laid down procedure before starting the recovery through coercive measures against a sick MSE's.

B. Likewise above in accordance with the RBI directions the Banks have also issued the mandatory guidelines to their branches/ regional office/ circle office and has made them duty bound to follow their own Head Office direction i.e. it is a serial process which has to be done by Banks in following steps, after NPA of a sick unit.

(i) Conduct a viability study as evidence.

(ii) If declared unviable, take the approval of next higher authority.

(iii) The next higher authority shall take such decision only after an opportunity given to the promoters of the unit to present their case before it.

(iv) The decision of the next higher authority should be informed in writing to the promoters.

C. The Banks have made the commitment to follow these guidelines in the code of Bank's commitments to micro and small enterprise.

D. The Banks have also issued the circulars to its Branches/ regional office/ circle office that recovery shall be the last resort after exhausting all the effort for revival of the units.

E. Because equal should be treated equally not the unequal should be treated equally is the main facet of Article 14 of the Constitution. Hence the RBI has made a three tier arrangement for the recovery of loan from MSE's, facing different circumstances in following manner:-

(i) Recovery through coercive measures like RDDBFI Act and/ or SARFAESI Act. against the units those are involve in willful defaults, willful mismanagements, diversification of funds etc.

(ii) Recovery through One Time Settlement (OTS) scheme against the units those are not willful

defaulter but having the capacity to repay the loan at a lump-sum amount.

(iii) Recovery through rehabilitation against the units those are sick or have lost their net worth due to circumstance beyond control.

Further, Likewise of the SICA the guidelines for rehabilitation of sick MSE's is also for giving effect the policy of the State towards securing the principles specified in clauses (b) and (c) of Article 39 of the Constitution **[12]** and under the umbrella of the Article 14 of the Constitution, the we submits that as per the law laid down by the Hon'ble Supreme Court that section 22 of the SICA shall prevail over RDDBFI Act, consequently recovery through rehabilitation guideline shall prevail over recovery through coercive measures under RDDBFI Act. and / or SARFAESI Act, in the Case of KSL and Industries Ltd Vs Arihant threads Ltd. And Ors. Dated 27 October 2014 **[14]** that Section 22 of SICA shall prevail over the provision of the recovery of debts in the RDDBFI Act as quoted below:-

At Para 52

"We might add that this conclusion has been guided by what is considered to be one of the most crucial principles of interpretation viz. giving effect to the intention of the Legislature. The difficulty arose in this case mainly due to the absence of specific words denoting the intention of Parliament to cover applications for recovery of debts under the RDDB Act while enacting Section 22 of the SICA. As observed earlier, the obvious reason for this absence is the fact that the SICA was enacted earlier. It is the duty of this Court to consider SICA, after the enactment of the RDDB Act to ascertain the true intent and purpose of providing that no proceedings for execution or distraints or suits shall lie or be proceeded with. Undoubtedly, in the narrower sense an application for recovery of debt can be giving a restricted meaning i.e. a proceeding which commences on filing and terminates at the judgment. However, there is no need to give such a restricted meaning, since the true purpose of an application for recovery is to proceed to the logical end of execution and recovery itself, that is by way of execution and distraint. We thus have no hesitation in coming to the conclusion that Section 22 clearly covers and interdicts such an application for recovery made under the provisions of the RDDB Act. We might remind ourselves of the of quoted statement of the principles of contextual construction laid down by this Court in Reserve Bank of India Versus Peerless General Finance and Investment Co. Ltd. & Ors.6, where this Court has observed:-

> *'33. Interpretation must depend on the text and the context. They are the bases of interpretation. One may well say if the text is the texture, context is what gives the colour. Neither can be ignored. Both are important. That interpretation is best which makes the textual interpretation match the contextual. A statute is best interpreted when we know why it was enacted. With this knowledge, the statute must be read, first as a whole and then section by section, clause by clause, phrase by phrase and word by word. If a statute is looked at, in the context of its enactment, with the*

glasses of the statute-maker, provided by such context, its scheme, the sections, clauses, phrases and words may take colour and appear different than when the statute is looked at without the glasses provided by the context. With these glasses we must look at the Act as a whole and discover what each section, each clause, each phrase and each word is meant and designed to say as to fit into the scheme of the entire Act. No part of a statute and no word of a statute can be construed in isolation. Statutes have to be construed so that every word has a place and everything is in its place'."

At Para 53

"53. Moreover, we have found nothing contrary in the intention of the SICA to exclude a recovery application from the purview of Section 22, indeed there could be no reason for such exclusion since the purpose of the provision is to protect the properties of a sick company, so that they may be dealt with in the best possible way for the purpose of its revival by the BIFR. In State of Punjab Vs. The Okara Grain Buyers Syndicate Ltd., the Court articulated the importance of preserving the beneficent purpose of the statute and observed:-

'14. …….. We shall therefore proceed to examine the provisions of the Act on the footing that the test for determining whether the Government is bound by a statute is whether it is expressly named in the provision which it is contended binds it, or whether it "is manifest that from the terms of the statute, that it was the intention of the legislature that it shall be bound", and that the intention to bind would be clearly made out if the beneficent purpose of the statute would be wholly frustrated unless the Government were bound'."

At Para 54

Having answered the reference, we hold that the provisions of SICA, in particular Section 22, shall prevail over the provision for the recovery of debts in the RDDB Act.

VI. Questions of Law to be answered by the Judiciary:

1) Whether, it is/ was mandatory for the Banks to follow the guideline for rehabilitation of sick MSE's dated 01.11.2012 issued by the RBI and declaring a sick unit as unviable, before starting the recovery through coercive measures under RDDBFI Act and/ or SARFAESI Act, and /or any other coercive measure?
2) Whether, recovery through rehabilitation (as per the follow up of rehabilitation guideline dated 01.11.2012) shall (is/ was) prevail over recovery through coercive measures like RDDBFI Act and / or SARFAESI Act against a Sick MSE?
3) Whether to start the recovery proceedings through said coercive measures against a sick MSE or the Entrepreneur of a sick MSE without any opportunity of rehabilitation is / was in violation of:
   - **i.** Doctrine of promissory estoppel?
   - **ii.** Doctrine of Proportionality?
   - **iii.** Equality of opportunity for means of livelihood?
   - **iv.** Right to live with dignity of means of livelihood,, which also includes,
     - **a.** Right to rehabilitation,

- **b.** Right to rehabilitation of Dignity,
- **c.** Right to rehabilitation of status,
- **d.** Right to rehabilitation of life?

IX. Conclusion:

Failure of an entrepreneur in entrepreneurship is not a crime, but due to lack of Judicial pronouncement about the legal and constitutional rights of the entrepreneurs of sick micro and small enterprises in India and non follow-up of the mandatory guidelines of RBI dated 01.11.2012, which creates a legal right after the judgment of the Constitution Bench in *Central Bank of India Vs Ravindra*(*Supra*), the vision of the Courts have been vague due to financial pollution of some willful defaulters, therefore the Banks are violating the legal and constitutional rights of the entrepreneurs.

So to ensure the justice with all entrepreneurs of sick/ fail MSE's of India it is necessary to resolve the said questions of law.

It is also our fundamental duty under Article 41-A (h) & (j) of the Constitution **[16]** *(to develop the scientific temper, humanism and sprit of enquiry and reform AND to strive towards excellence in all spheres of individual and collective activity so that the nation, constantly rises to higher levels of endeavor and achievement*) we will strive towards the "Legal and constitutional Rights" for the entrepreneurs of India.

So, it is the need of the hour is to strengthen their roots, by identification of the truth, for the sustainable growth of the Tree of Socio-Economic System i.e., MSE's.

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An Analytical Study of Triple Deficit in India

Abstract
The study help to understand the intricacies of twin deficit and triple deficit in India with relationship among current account balance (CA), budget balance (BB) and Saving Investment balance (SIGAP). It is an addition of the twin deficit hypothesis with enclosure of saving investment gap which is very important to understand for economic growth of a country. The study has been used secondary annual average data during the period 1991 to 2018.ADF-GLS test has been given related results for both levels and first differences in lagged log income. The results are found by using basic descriptive statistics (Mean, Dispersion and Coefficient of Variation), and econometrics tools Unit Root Test and Granger Causality test for analyzing data. In this study granger-causality test has been supported the triple deficit hypothesis in India. Generally, India should made every effort to reduce the current account deficit on priority basis to increase the scope of direct taxation and increase the revenues as well as reduce the un-necessary current expenditure. The current account is the main cause to fiscal account deficits in the short-run and it should be improve for development of the economy.

Key-words: CAD, BD, SIGAP, Twin Deficit and Triple Deficit.

NOMENCLATURE

CAD- Current Account Deficit
BD- Budget Deficit
SIGAP- Saving Investment Balance
ADF- Augmented Dickey-Fuller

I. INTRODUCTION

In emerging countries maintaining sustainable budget account is one of the key pre-conditions for an economy to thrive. A deficit means when expenses more than revenues, liabilities exceed assets, or imports more than exports.BD is an individual, business or government more spending revenue than their budgets over a specific period of time. CAD is a trade measurement and a situation when country imported more goods, services, and capital or revenue than it exported. A current account deficit means a country depend on other countries for fulfilment of their capital to invest. It could be a positive or negative sign for country to growth when depending on why the country is running the deficit and the country has a credit risk. The Saving-Investment Gap is the most important aspects in developing countries in terms of being reference to the macroeconomic indicators for a country.

There are various study works on twin deficit in different countries (Fleming, 1962; Mundell, 1963; Kearney et al., 1990, Furcer, and Zdzienicka, 2018, Feldstein and Horioka, 1980). Feldstein and Horioka (1980) said if savings and investment are not highly correlated then budget deficit and current account deficit can move together, because independence of savings and investment means capital mobility is more. Ricardian equivalence hypothesis (Barro, 1974; 1989) explained expansionary fiscal policy the substitution of debt for taxes has

no effect on aggregate demand nor on interest rate, which means that an increase in taxes cannot affect external deficit. This phenomenon was first observed in 1980s when United States economy faced decline in both current account balance and budget deficit. Some economists were said that the more downfalls in current account balance is because of record level budget deficit then this mutual association was given the name of twin deficit hypothesis.

The twin deficits hypothesis is a strong causal link between a government budget balance and current account balance. Standard macroeconomic theory points to how a budget deficit can be a contributing factor to a current account deficit. This can be seen from consider the national accounting model of the economy.

$Y = C + I + G + (X - M)$

Where, Y is national income or GDP, C is consumption,(I) is investment, (G) is government spending and (X–M) is net exports. This represents GDP because all the production in an economy (the left hand side of the equation) is used as consumption (C), investment (I), government spending (G), and goods that are exported in excess of imports (NX). Another equation defining GDP using alternative terms (which in theory results in the same value is.

$Y = C + S + T$

Where Y is again GDP, (C) is consumption (S) is saving, and (T) is taxes. This is because national income is also equal to output, and all individual income either goes to pay for consumption (C), to pay taxes (T), or is saved (S).

Since $Y=C+I+G+NX$

$Y - C - T=S$

$Y\text{-}C\text{-}T=S$, then

$S=G - T+NX+I$

$(S - I) + (T - G) = (NX)$

If (T-G) is negative, a budget shows deficit account. Investment (I), net exports (NX) are fall, it is causing a deficit in trade. Hence, a budget deficit can also effect to a trade deficit and it is causing a twin deficit.

The savings-investment imbalances as anoutcome of free movement of capital began to be evaluated as the main cause for the imbalances in the current account. Remaining of domestic savings not sufficient while domestic investments are growing as a result of free movement of capital has accelerated the saving-investment balance expression in overall economic balance and made necessary of extending twin deficit and twin deficit's results which has been discussed as the current account balance and the budget balance. Martin Feldstein (Feldstein,1997) emphasized the twin deficits in the 1980s, in the United States; the formation of the twin deficits with the saving deficits in most countries in the 2000s has increased the importance of studies relevant to the potential relationships between these three deficits.

Several studies on various aspects of the current account deficit, budget account deficit, interest rate, exchange rate, as well as saving investment deficit undertaken in India and overseas have been reviewed. A summary of these studies, both worldwide and in Indian as per twin and triple deficit context are offered below.

Various studies focused on twin deficits issue in the different countries (Epaphra, 2017; Chukwuma, 2014; Durgun et al.,

2016; Kiran, 2011; Davide, and Aleksandra, 2018; Baharumshah et al., 2005; Olga, 2000).Epaphra, (2017) studied the existence of twin deficits issue in the context of Tanzanian economy by using Augmented Dickey-Fuller (ADF) and Granger Causality Wald Test and confirmed the strong evidence in favour of relationship between the budget deficits and Current Account deficits.. Chukwuma, (2014) found there was no confirmation of twin deficits hypothesis for South Africa in the short-run with fiscal deficit and current account. Durgun, et al. (2016) found that there was an unidirectional causality running from current deficit to budget deficit and exchange rate to budget deficit and a bidirectional causality between interest rate and budget deficit in Turkey.

Kiran, (2011) examined the long run relationship between trade deficit and budget deficit in Turkey in the context of fractional co-integration approach and found that there was little evidence for the presence of fractional co-integration relationship between trade deficit and budget deficit, hence, for the validity of twin deficits hypothesis in Turkey. Davide, and Aleksandra, (2018) found that a one per cent of GDP unanticipated increase in the government budget balance improves, on average, the current account balance by 0.8 percentage point of GDP. This effect is substantially larger than that obtained using standard measures of fiscal impulse, such as the cyclically-adjusted budget balance.

Baharumshah et al. (2005) studied the twin deficits hypothesis in four ASIAN countries namely; Indonesia, Malaysia, Philippines and Thailand and found co-integration test indicated a symmetric long run relationship between selected variables in Indonesia, Malaysia and Thailand except Philippines where there was no evidence of long-run relationship. Olga, (2000) investigated whether the statistical relationship between current account deficit and the government budget deficit in Ukraine, found that twin deficit hypothesis was supported by Ukrainian data. The transmission mechanism between the two deficits was the exchange rate.

Several researchers described the validity of the triple deficits hypotheses (Ayşe, and Hüseyin, 2018; Shastri et al., 2017; Akbaş, et al., 2014; Adom, and Elbahnasawy, 2014; Şen et al., 2014; Ramakrishna, and Rao, 2012; Worrell et al., 2016; Hilmi, and Balikçioğlu, 2016).

Ayşe, and Hüseyin, 2018examined the validity of the twin or triple deficits hypotheses in different six countries by using an annual Time series panel data that found corroborated neither the validity of the twin deficits hypothesis nor it was extended version, the triple deficits hypothesis, for any of the sample countries. Shastri, et al. (2017) indicated a positive impact of budget deficit on current Account. Akbaş, et al. (2014) proved that triple deficit hypothesis was valid in turkey. Adom and Elbahnasawy, (2014) results seemed to conclusively point to positive impacts of reductions in SI gaps on output expansion. Şen, et al. (2014) found that foreign trade deficit was higher than current deficit in turkey and also valid for the saving-investment balance. Ramakrishna, and Rao,(2012) studied the causal link between savings and investment in Ethiopia using

Co-integration method. The result was dependent largely on foreign aid and finance. Ethiopia could not raise its domestic savings to meet the investment requirements and therefore confront the problem of dependence and risk to external shocks.

Worrell et al. (2016) identified of the problem of developmental investment and the study carefully examined the saving gaps in a number of chosen majorities of emerging market and developing economies with help of descriptive statistical analysis and correlations. The results found that lack of adequate finance as a major barrier to investment in these countries and positivity of the relationship is mainly driven by the overwhelmingly positive saving gap. Hilmi, and Balikçioğlu, (2016) found that there was an inverse relationship between the budget and the current account deficits which implies that transition economies face with the budget deficit problems or vice versa in case of reducing the current account deficit

II. RESEARCH MOTIVATION:

After review of existing literature concerned with the problem under study researcher identified some gap. Most of the studies are related to twin deficit hypothesis and very few studies are related to triple deficit hypothesis in India and most of the researches are conducted in foreign countries but no research has been carried out in Indian context. Hence, there seems to be needed to conduct the proposed study in reference to India.

III. OBJECTIVES:

There are following objectives of the study:

1. To develop an understanding of the intricacies of twin deficit and triple deficit hypothesis in India.
2. To examine the validity of triple deficit hypothesis in India.

IV. RESEARCH METHODOLOGY:

The secondary data was collected from Books, Journals, Reports, Working papers, Newspapers and Statistical data base of RBI. The information will also be collected from official websites of India. All annual data have been used from the period 1991 to 2018.

There are following research methodology to achieving the above objectives:

1. Theunderstanding of the intricacies of twin deficit and triple deficit in India will be scrutinized by using secondary data available in the publications of Government of India, international economic/ financial organizations and the regulatory authorities.
2. The validity of triple deficit hypothesis in India will be examined by using Unit Root Test and Granger Causality test.

Besides basic descriptive statistics (Mean, Dispersion and Coefficient of Variation), and econometrics tools Unit Root Test and Granger Causality test were used for analyzing data.

A. INTRICACIES OF TWIN AND TRIPLE DEFICIT HYPOTHESIS IN INDIA

Triple deficit theory which is put forward by expanding the twin deficit theory provides to better understand the savings deficit together with the trade deficit and budget deficit and to evaluate the relationship among these. Triple deficit defines the existence of an

equilibrium condition within the disequilibrium where internal and external disequilibrium do coexist that puts forward the necessity of producing alternative policies.

The savings-investment imbalances as a result of free movement of capital began to be evaluated as the main reason for the imbalances in the current account. Remaining of domestic savings insufficient while domestic investments are increasing as a result of free movement of capital has accelerated the process of saving-investment balance expression in overall economic balance and made necessary of extending twin deficit and twin deficit's results which has been discussed as the current account balance and the budget balance.The twin deficits hypothesis is the proposition that there is a strong causal link between a nation's government budget balance and its current account balance.

$Y = C + I + G + (X - M)$

Another equation defining GDP using alternative terms

$Y = C + S + T$

Since,

$Y = C + I + G + (X - M)$

$Y = C + S + T$

As we know,

Aggregate Income = Aggregate Expenditure

$C + I + G + (X - M) = C + S + T$

Remove C from both side

$I + G + (X - M) = S + T$

$(X - M) = (T - G) + (S - I)$

Equation states that the trade or current account deficit, (X – M), is equal to budget deficit, (T – G), plus the saving – investment gap, (S – I).

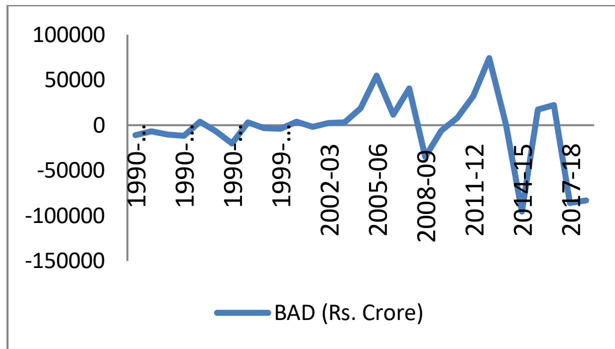
So, we can rewrite this as

$$(S - I) + (G - T) = (M - X)$$

B. VALIDITY OF TRIPLE DEFICIT HYPOTHESIS INDIA

The triple deficit hypothesis is explained properly by traditional Keynesian framework, predicting that the third deficit resulting from twin deficit can be explained by two possible channels. Per Keynesian framework, the loan able fund model and net capital outflow proposes that budget deficit has uncertain impacts on financial account. Firstly, it observes that an increase in budget deficit (negative saving) will raise the domestic interest rate which will in turn increase the expected yield of the domestic financial assets. Understanding the causal relationship between savings and investment has become relevant for its policy implications. If the saving causes investment, then promoting domestic savings should be a high priority to boost investment and economic growth. Most of the existing studies on saving- investment relationships are cross section and cross country studies and do not use long period data. The difficulty with such studies is the homogeneity assumption across the countries, which is unrealistic due to variations in social, economic and institutional conditions. The investment must be financed by capital inflows from abroad. Therefore, understanding significance of saving-investment gap for countries is very important to comprehend their economic growth.

Deficit value of Budget Account:

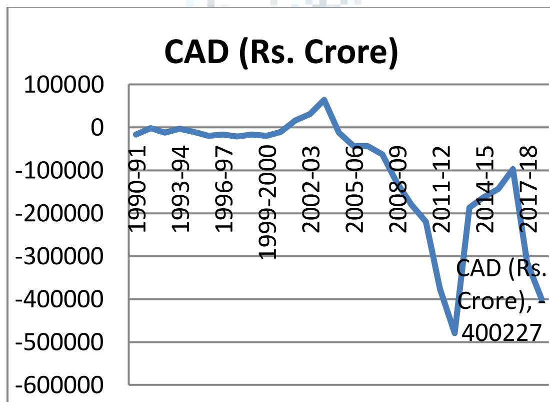


Source: Author's calculation based on data from RBI

Fig. 1 Deficit value of Budget Account

Fig. 1 shows a budget deficit occurs when an individual, business or government budgets more spending than there is revenue available to pay for the spending, over a specific period of time.

Deficit value of current account:

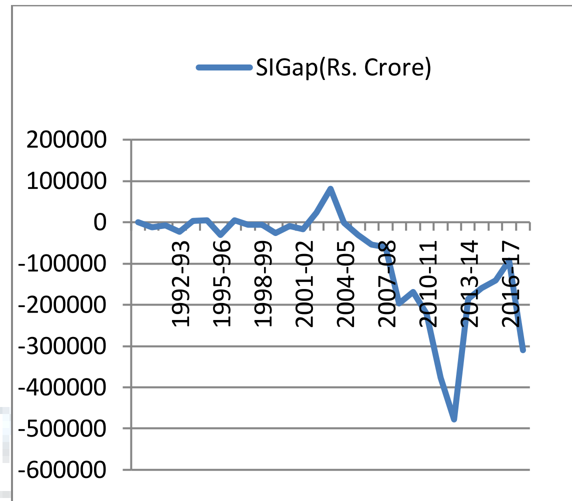


Source: Author's calculation based on data from RBI

Fig. 2 Deficit value of current account

Fig. 2 shows a current account is in decreasing trade from 2003 and increasing after 2012 to 2017 and then downfall in the account. It presents country imported more goods and services than it exported.

Deficit value of Saving Investment Gap:

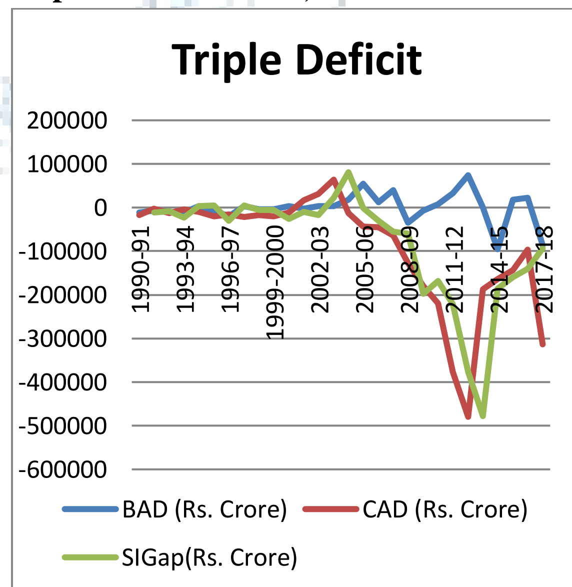


Source: Author's calculation based on data from RBI

Fig. 3 Deficit value of Saving Investment Gap

Fig. 3 shows saving investment is the gap between the gross saving and gross investment of government of India. To ensure sustainable high economic growth is known to be important in the share of investment and savings.

Triple Deficit of CAD, BAD and SIGAP:



Source: Author's calculation based on data from RBI

Fig. 4 Triple Deficit of CAD, BAD and SIGAP

Fig. 4 represents the all triple deficit of India. Current account and Saving-Investment gap are higher deficit then Budget account.

V. Findings and Conclusion

Data analysis and interpretation is intended to transform the data collected into credible evidence about the development of the intervention. Data analysis involves working to uncover patterns and trends in data sets while interpretation involves explaining those patterns and trends. Data analysis is considered an important step and heart of the research in any research work. When data has been collected with the assistance of relevant tools and methods, the next logical step, is to analyze and interpret the data with a view to arriving at empirical solution to the problem. For this study, we employed descriptive statistical techniques like mean, standard deviation, coefficient of variation, and co-integration analysis.

We first investigate the integration properties of the variables by employing augmented Dickey-Fuller (ADF) tests. The find out the level of differences of data and check the stationarity or non-stationarity of data if data have first level of difference then we check the granger causality among the data series. We find out the t-statistic, coefficient and standard error.

Table 1

Augmented Dickey Fuller Test.

Null Hypothesis: GFD has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=6)			
		t-Statistic	Prob.*
ADF test		-4.1598	0.0035
Test critical values:	1% level	-3.7114	
	5% level	-2.9810	
	10% level	-2.6299	

*MacKinnon (1996) one-sided p-values.

Source: Author's calculation based on data from RBI.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GFD)

Method: Least Squares

Date: 11/16/19 Time: 13:08

Sample (adjusted): 1992 2017

Included observations: 26 after adjustments

Table 1.2

Summary Statistics of Variables Used for India

Variable	Std. Error	efficien	t-Statistic	Prob.
GFD(-1)	0.235312	-0.978857	-4.159818	0.0004
C	7111.092	531.5585	0.074751	0.9410
R-squared		0.418944	Mean dependent var	-3043.077
Adjusted R-squared		0.394733	S.D. dependent var	46265.27
S.E. of regression		35993.87	Akaike info criterion	23.89389
Sum squared resid		3.11E+10	Schwarz criterion	23.99067
Log likelihood		-308.6206	Hannan-Quinn criter.	23.92176
F-statistic		17.30	Durbin	1.74

	408	-Watson stat	5632
Prob(F-statistic)	0.000352		

Source: Author's calculation based on data from RBI

This is confirmed by the t-statistic, -4.159818, which allows the null hypothesis of nonstationarity to be rejected at the 5% level (critical value -2.981038). Because we are testing the first differences, the dependent variable in the regression is the change in the first difference, in other words, the second difference. The explanatory variable is the first difference in lagged log income. Test- statistic is smaller (in absolute value) than the 5% critical value then rejects the null hypothesis and claim that your variable is stationary. Employed variables in the study assumed stationarity in their first difference. The table shows the second half of the view output when performing an ADF test on the differenced series. The coefficient of GFD is -0.978, well below zero, suggesting that the null hypothesis of a nonstationary process should be rejected.

Table 2.1

Augmented Dickey Fuller Test

Null Hypothesis: D(CAD) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=6)			
		t-Statistic	Prob.*
ADF test		-4.2923	0.0026
Test critical values:	1% level	-3240	
	5% level	-2.9862	
	10% level	-2.3260	

*MacKinnon (1996) one-sided p-values.

Source: Author's calculation based on data from RBI.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(CAD,2)
Method: Least Squares
Date: 11/16/19 Time: 13:09
Sample (adjusted): 1992 2017
Included observations: 25 after adjustments

Table 2.2

Summary Statistics of Variables Used for India

Variable	Std. Error	efficien	t-Statistic	Prob.
GFD(-1)	0.238529	-1.023840	-4.292302	0.0003
C	17977.39	-12144.77	-0.675558	0.5061
R-squared		0.444764	Mean dependent var	-8267.240
Adjusted R-squared		0.420624	S.D. dependent var	117941.6
S.E. of regression		89773.37	Akaike info criterion	25.82209
Sum squared resid		1.85E+11	Schwarz criterion	25.75163
Log likelihood		-319.5573	Hannan-Quinn criter.	1.781739
F-statistic		18.42385	Durbin-Watson stat	
Prob(F-statistic)		0.000272		

Source: Author's calculation based on data from RBI.

This is confirmed by the t-statistic, -4.292302, which allows the null hypothesis of non-stationary to be rejected at the 5% level (critical value -2.986225). Because we are testing the first differences, the dependent variable in the regression is the change in the first difference, in other words, the second difference. The explanatory variable is the first difference in lagged log income. Test- statistic is smaller (in absolute value) than the 5% critical value then rejects the null hypothesis and claim that your variable is stationary. Employed variables in the study assumed stationary in their first difference. The table shows the second half of the view output when performing an ADF test on the differenced series. The coefficient of CAD is -1.023840, well below zero, suggesting that the null hypothesis of a non-stationary process should be rejected.

Table 3.1

Augmented Dickey Fuller Test.

Null Hypothesis: D(SIGAP) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=6)			
		t-Statistic	Prob.*
ADF test		-4.29230	0.0026
Test critical values:	1% level	-3.72407	
	5% level	-2.98622	
	10% level	-2.6299	

*MacKinnon (1996) one-sided p-values.

Source: Author's calculation based on data from RBI.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(SIGAP,2)
Method: Least Squares
Date: 11/16/19 Time: 13:20
Sample (adjusted): 1992 2017
Included observations: 25 after adjustments

Table 3.2

Summary Statistics of Variables Used for India

Variable	Std. Error	efficient	t-Statistic	Prob.
GFD(-1)	0.238529	-1.023840	-4.292302	0.0003
C	17977.39	-12144.77	-0.675558	0.5061
R-squared		0.444764		-8267.240
Adjusted R-squared		0.420624		117941.6
S.E. of regression		89773.37	Akaike info criterion	25.72458
Sum squared resid		1.85E+11	Schwarz criterion	25.75163
Log likelihood		-319.5573	Hannan-Quinn criter.	1.781739
F-statistic		18.42385	Durbin-Watson stat	
Prob(F-statistic)		0.000272		

Source: Author's calculation based on data from RBI.

This is confirmed by the t-statistic, -4.292302, which allows the null hypothesis of non-stationarity to be rejected at the 5% level (critical value -2.986225). Because we are testing the first differences, the dependent variable in the regression is the change in the first difference, in other words, the second difference. Test- statistic is smaller (in absolute value) than the 5% critical value then rejects the null hypothesis and claim that your variable is stationary. The table shows the second half of the view output when performing an ADF test on the differenced series. The coefficient of SIGAP is -1.023840, well below zero, suggesting that the null hypothesis of a non-stationary process should be rejected.

GRANGER CAUSALITY TEST

Pairwise Granger Causality Tests
Date: 11/16/19 Time: 13:13
Sample: 1991 2017
Lags: 2

Table 4.1
Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
CAD does not Granger Cause GFD	25	9.5642 8	0.00 12
GFD does not Granger Cause CAD		0.1508 0	0.86 10

This hypothesis CAD does not Granger Cause GFD is rejected because its probability (0.0012) is less than 0.05. Its mean that GFD does not Granger Cause CAD and another one hypothesis, GFD does not Granger Cause CAD is accepted because its probability (0.8610) is greater than 0.05. Its mean that CAD Granger Cause GFD.

Pairwise Granger Causality Tests
Date: 11/16/19 Time: 13:13
Sample: 1991 2017
Lags: 2

Table 4.2
Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
SIGAP does not Granger Cause GFD	25	9.5642 8	0.00 12
GFD does not Granger Cause SIGAP		0.1508 0	0.86 10

This hypothesis SIGAP does not Granger causality GFD is rejected because its probability (.0012) is less than .05. Its mean that GFD does not Granger Cause SIGAP and another one hypothesis, GFD does not Granger Cause SIGAP is accepted because its probability (0.8610) is greater than 0.05. It's mean that SIGAP Granger Cause GFD.

Pairwise Granger Causality Tests
Date: 11/16/19 Time: 13:22
Sample: 1991 2017
Lags: 2

Table 4.3
Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
SIGAP does not Granger Cause CAD	25	7.4528 8	0.00 15
CAD does not Granger Cause SIGAP	70	0.6923	0.16 0

This hypothesis SIGAP does not Granger Cause CAD is rejected because its probability (0.0015) is less than 0.05. Its mean that CAD does not Granger Cause

SIGAP and another one hypothesis, CAD does not Granger Cause SIGAP is accepted because its probability (0.6923) is greater than 0.05. It's mean that SIGAP Granger Cause CAD. Since the mid-1990s the relationship connecting the fiscal deficit and the current account in India seems to have blurred. Higher fiscal deficit have been accompanied by a narrowing of the current account deficit, implying that a major part of the fiscal deficit has been absorbed by a surplus in domestic saving of India.

VI. CONCLUSION

The aim of this exercise was to extend the well-known hypothesis known in the literature as twin deficit hypothesis to triple deficit. This new established phenomenon of triple deficit hypothesis for India, relationship among current account balance (CA), budget balance (BB) and Saving Investment balance (SIGAP). Granger-causality test results also support the triple deficit hypothesis. This is confirmed by the t-statistic which allows the null hypothesis of non-stationarity to be rejected at the 5% level (critical value). ADF-GLS test produce similar for both levels and first differences in lagged log income.

It is important to note that this initial but influential piece of research has some limitations. Firstly, this approach did not consider the financial sector in theoretical framework and focused only on real sector i.e. goods and services sector (GDP). Therefore, to establish a theoretical linkage among the three series, an alternative approach based on portfolio balance is needed. For comparison purposes the study suggests to include other countries or use panel estimation for further findings proceedings. This work will add to the existing literature of twin deficit hypothesis and have some policy implication too. It is important to mention that there is persistent increase in Indian current account deficit since the early 1990s which is financed by borrowing.

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Financial Risk Management in Indian Banks
A case study of Bank of Maharashtra and YES Bank

Introduction

Earlier, many a times, some banks used to shut down permanently, that is, due to any mercurial event affecting a bank's profit or expenses. This is not just an effect from an event happening for once or twice, but these events take place every day, maybe be due to any change in the environment or market.

The effect from these events becomes a risk eventually, for any public or private sector bank. Risks may cause a serious damage to the bank if not controlled. In order to control these risks, there is a huge need for a framework in the banks.

The risk management system is a part of a bank which only focuses on controlling the risks in the banks in a way that turns out to be effective for the bank.Financial Risks are sometimes neglected, which may get bank into a bad position as there is never a full stop to these risks, but they are still an important part of the banks.

If these risks are neglected then investors may stop investing in the banks because financial risks certainly affect the profit and expenses of the banks, and investors, before investing always check if the bank is profitable or not.

Risks cannot be completely eliminated but can be reduced, can be brought to a line where they may not have any negative impact over the banks.Challenges are faced by every public and private sector bank; it totally depends over the banks how they manage and control them.

In order to gain an insight of the way banks manage financial risks, one public and private sector bank has been taken into consideration.

Bank of Maharashtra is a nationalized bank under the ownership of Ministry of Finance , Government of India. The bank shows its strength of more than 15 million customers entire country and 2001 branches as of Dec 2021. It has the largest network of branches of any nationalized bank in the state of Maharashtra. It facilitates financial assistance to SME and help in starting new industrial houses.

In India Yes Banks headquarter belongs to Mumbai. It offers wide range of differentiated products for corporate and retail customers through retail banking services. On 5 March 2020, in an attempt to avoid the collapse of the bank, which had an excessive amount of bad loans, the Reserve Bank of India (RBI) took control of it.

To trap the confidence among new and existing customers the bank authority.es has to focus on market and internal functioning of Banks with the consent of all their stakeholders' to assured of speedy recovery.

During the year 2020-21, as the impact of Covid, there is fewer amounts of loans and revenues has been taken by the customers.

Banks tried to improve ad survive during Covid by their effective planning, decision making, strengthening the framework and the financial position of the bank by maintaining a strong balance sheet etc.

Review of literature

S. No.	TITLE	YEAR	AUTHOR	OBJECTIVES	FINDINGS
1.	Financial Risk	November 2021	Anjaneyulu,	To elucidate about financial risk about different types of financial risks.	Financial risks mostly occur due to the changes in the dynamic environment.
2.	Financial Risk	November 2021	Wikipedia	To highlight the concept of financial risk.	Financial risk is associated with financing, which includes risks due to loans or change in market prices or interest rates.
3.	Financial Risks and its Types	October 2021	EshnaVerma	To realize what financial risk is and what types of financial risks are.	Financial risks include credit risk, market risks and interest rate risks.
4.	Financial Risk: The Major Kinds of Risks that banks face	July 2021	J.B. Maverick	To highlight that there are many ways to categorize a bank's financial risks.	Financial risks occur due to changes in the interest rates or market prices or decrease in the credit quality of the borrower.
5.	Financial Risk	March 2021	Adam Hayes	To make everyone aware of the presence of financial risks.	Financial risks are everywhere and come in many types, affecting nearly everyone. Knowing the danger can only mitigate their harm and reduce the chances of a negative outcome.
6.	Bank Risk Managemen t	April 2019	Nguyen ThiThieuQu ang and Christopher Gan	To provide better understanding of bank risk-taking behaviors.	Risk is important for banks and there are various types of risks that are involved.

7.	Risk Managemen t in Banking Industry	April 2018	TurgutTurso y	To explain how important, it is for the banks to have an affective system to eliminate risks.	Banks can eliminate risks and can resist any negative effect by any risk, only if they have an effective system.
8.	Risks and Types of Risks	February 2018	Neeraj Mishra	To know the risks of banking sector.	Risks are important for banks as banks learn how to bring up effective methods to deal with various types of risks.
9.	Types of Risks	January 2018	Knowledge Bank	To provide information about market, credit risk and interest rate risk.	Credit risk, market risk and interest rate risk are the most common risk found in banks.
10.	Risk in Indian industry	June 2017	Rashmi Soni	To examine numerous risks and strategies outline by Banks for risk management.	Risks arise due to uncertain events to eliminate them, updated effective methods are required but in a country like India the methods need to be updated yet.
11.	Risk Managemen t in Indian Banks	December 2010	Dr. Krishn A. Goyal	To discuss in depth, the importance of risk management process and throws light on challenges and opportunities.	It is important for banks to manage risks as efficiently and effectively as possible.
12.	Risk Managemen t in Banking	-	Logic Manager	This guide will provide an overview of financial risk management in banking and will go over the process of risk management in banks.	Risk management is done by a process which includes the identification, measurement, control and monitoring and reviewing of risks.
13.	Risk Managemen t in Banks	-	Madhuri Thakur	It will focus on the topic what is financial risks management? What type of financial risks banks face and how they manage them through a risk	Risk management can be easily managed if the bank has an effective framework.

				management process?	
14.	Importance of Risks of Banks	-	Corporate Finance Institute	To explain the importance of risks in banks.	Risks are important for banks as it encourages government to set better regulations and also helps banks in gaining trust of investors.

Objectives

- To know the functioning of financial risk management in banks.
- To analyse the recent advancements made in management of risks in banks.
- To see how various risks affect the bank's profit and expenses.

Research Gap

No study has been conducted to show how various risks differ from each other.The study highlights how risks are managed by public and private banks in India. This study directly focuses on a country as the risks management in all the banks in India is nearly same.

Need of the Study

A bank is an institution which is quite helpful for all the people living in a country as it accepts deposits, grant loans or advances etc. Banking industry having the major role in the industry also has to go through risks in order to survive in the market and wealth building.

These risks are an important part of the banks because if a bank manages the risks properly, it tends to attract large number of investors by underlining the profit earned by managing the risks. In case, if a bank neglects the risks, the consequences of risk, depending upon its extent, may affect the profit or expenses of the bank or may go into loss.

Research Methodology

The data has been collected from secondary sources only due to the large area coverage.

STUDY PERIOD - The study is based on the previous 6 year i.e., from 2015 to 2021.

Financial Risk Management

- Bank risk is usually referred as the potential loss to a bank due to the occurrence of events.
- A risk can be defined as an unplanned event with financial consequences resulting in loss or reduced earnings. It can be defined as the uncertainty of the outcome.
- Financial risk refers to your business' ability to fulfil the financial obligations. This type of risk typically arises due to instabilities, losses in the financial market or prices, currencies, interest rates, etc.
- Financial risk is any of various types of risks associated with financing, including financial transactions that include company loans in risk of default.
- As risk is directly proportionate to return, the more risk a bank takes, it can expect to make more money.

- Financial Risks are bad debts for the Banks which shows losses for a period can be measured and minimised.

Process of Financial Risk Management

I. **Risk Identification-**The risk identification involves -:
   1. Understanding the nature of various kinds of risks.
   2. Circumstances which lead a situation to become a risk situation and
   3. Causes due to which the risk can arise.

II. **Risk Measurement and Quantification-**Though the exact measurement of risk is not possible, till the probability for getting risk can be measured and its degree of occurrences can be measured.

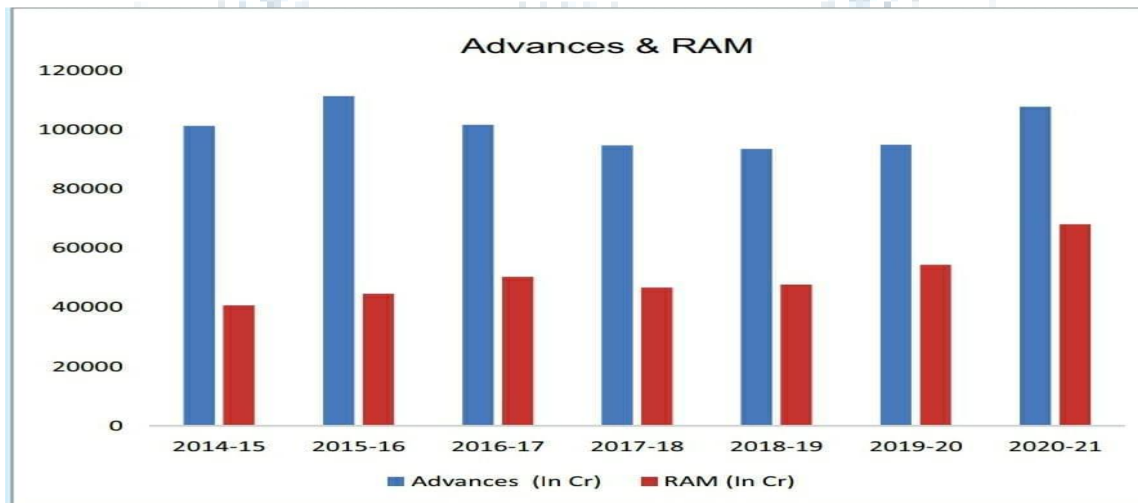
III. **Quantitative Analysis-** In this step after risk measurement, the banks must make sure to evaluate their historical performance.

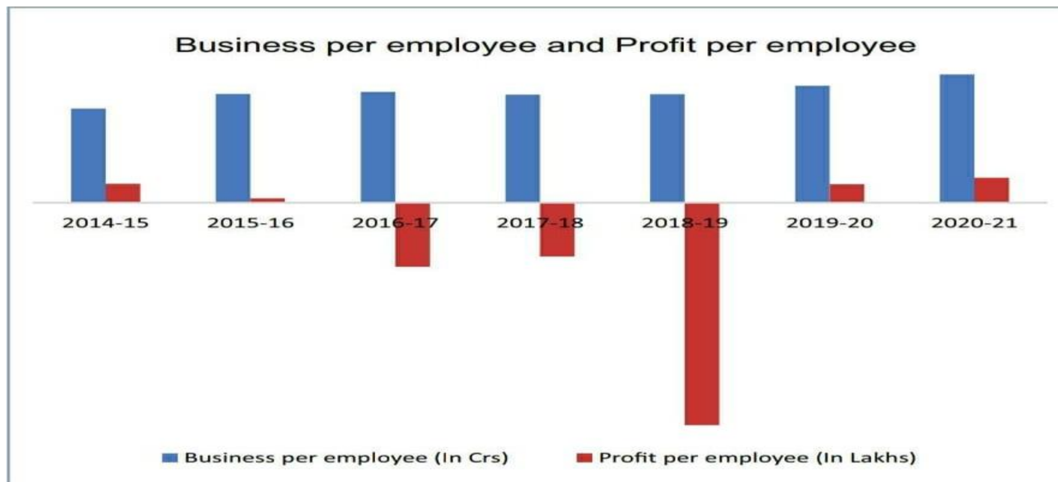
IV. **Risk Control-**Risk can be controlled by diversifications and transformation.

V. **Monitoring and Reviewing-**In risk monitoring the bankers have to fix up the parameters on which the transaction is to be tested to be sure that there is no risk to viable existence of the financial unit or investment of the bank.

Data Interpretation and Analysis

Public Sector Bank (Bank of Maharashtra)





The public sector bank, despite the various risks which includes the decrease in the credit quality of a borrower, fluctuations in the interest rates, currency exchange rates and commodity or housing prices, unable to meet cash obligations and the ongoing pandemic, has provided their services such as loans and advances etc. all these years, even though due to this their profits were at a huge risk.

As shown in the graph above, during 2014-15 to 2020-21, there is not much fluctuations in the advances and RAM. Major attention to be given to the 2017-2019 where there is continuous decline in advances and profits too. During FY 2020-21 after all the banks succumbed to a big risk of Covid, with pragmatic view and timely decisions of the management and the team with the support of the customers, the Bank decided to increase it advances more and the profits as result increased more. It reported significant improvement on advance. After dealing with various risks banks are not in position to cope up with the losses. Public sector banks gave more focus on the growth aspects by planned decisions and overcome with risks.

Private Sector Bank (Yes Bank)

ADVANCES (₹ in crore)

(5-year CAGR)

17.8%

Year	Advances
FY 2020	1,71,443
FY 2019	2,41,500
FY 2018	2,03,534
FY 2017	1,32,263
FY 2016	98,210
FY 2015	75,550

Granular Advances now contribute almost 44% of total advances

NET PROFIT (₹ in crore)

Year	Net Profit
FY 2020	(16,418)
FY 2019	1,720
FY 2018	4,225
FY 2017	3,330
FY 2016	2,539
FY 2015	2,005

Impacted by interest/ fee reversals, sell downs and slippages

Banks go through various risks such as includes the decrease in the credit quality of a borrower, fluctuations in the interest rates, currency exchange rates and commodity or housing prices, unable to meet cash obligations, impact of natural calamities or pandemic, technology resiliency, cyberattacks or computer viruses, obscure change in laws and negative publicity resulted in lower demand for loans and fee-based services and other consequences on borrowers, but only some could manage to profit out of it.

The private sector bank has been performing very well in the past few years with an increase in its advances and profits. From FY 2015 to 2019, the bank increased the advances from 75,550 to 2,41,500, but it was always in a huge loss in case of profits every year, as along with the advances it also the interest rates and fees which showed many defaulters. Unfortunately, in 2020, the bank was affected by a huge risk of covid, which is why its advances came down to 1, 71,443 and the profits unexpectedly increased to 16,418 in that with help of their great planning and decision to reduce advances. Therefore, the risks affect the profitability and performance of the bank in a drastic way, but if the bank is able manage the risk with its tactics then it may affect the bank in a positive manner.

Findings and Suggestions

- There is no uniform approach in measuring the financial risks in banks. Till date simple and experimental methods are used.
- For measuring these risks, it requires estimation of the probability of financial loss.
- Banks can make use of analytical and judgemental techniques to measure the risk level.
- Advancements in Information Technology (IT) have also enhanced the operating efficiency of banks and strengthened their risk management capability.
- Risk should be assessed and reviewed at regular intervals.

- Indian banks have not evolved any scientific methods and are using simple process of risk management which measures business activity.

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Double Blind Peer Reviewed Journal

Performance and Trend Analysis: A Case Study of HDFC BANK

Abstract

The largest private sector bank in India is HDFC (Housing Development Finance Corporation Limited) at present and also ranked one Bank in India (as per Forbes World's Best Bank survey). The HDFC Bank has a 28.4 percent market share in spending as per the latest data showed by RBI as of July 2022. This paper is aimed to examine the performance of HDFC bank and analyze the trend by using various parameters. To measure the performance of HDFC, trend analysis through a line chart tool and ratio analysis are used by using financial statements of different periods applied in this study. Analysis of financial statements over some time enables the management to identify the factors which are directly responsible for affecting the changes in deposits, advances, profit, and NPAs. Hence, this study attempts to analyze the profitability, efficiency, and asset quality trends of the HDFC bank for the period of 2013-14 to 2022-23 (ten years).

Key-words: HDFC, Assets, Net Profit, Performance, Ratios

Introduction

The economic development of a country also depends on the performance of Banks and hence the banks play an active role in the nation's development. The banks' ability to make a positive contribution to the process of growth depends on the effectiveness of the banking system.

The banking sector reforms were aimed at making banks more efficient and feasible. Due to these reforms, Indian banks' capital adequacy is now on par with international standards. The level of net NPAs (Non-Performing Assets) has come down to manageable levels. The present study is devoted to analyze HDFC Bank's financial performance.

HDFC was the first financial institution in India to receive approval from the Reserve Bank of India (RBI) to establish a bank in the private sector. This was done as part of RBI's policy for liberalization of the Indian banking industry in 1994.

HDFC Bank was incorporated in August 1994 in the name of HDFC Bank Limited, with its registered office in Mumbai, India. The bank started its operations as a Scheduled Commercial Bank in the month of 1995. HDFC is the largest Indian private sector bank Headquartered in Mumbai and also ranked as the Number One Bank in India according to Forbes World's Best Bank survey. The bank offers a different variety of services and products but is not limited to Wholesale and Retail Banking, Personal Banking, Home, Business Loans, Auto and Lifestyle Loans, Credit and Debit Cards. The bank also boasts of introducing new leading digital products such as SmartBUY and Payzapp. The recent RBI data shows that HDFC Bank has a 28.4 percent market share in spending as of July 2022, Pre-embargo, the market share of HDFC Bank was 30.67 percent. As of January 2023, HDFC enjoys a market capitalization of Rs. 9.34 trillion. The interest rate charged by HDFC Bank on home and personal loans is 8.5-9% and 10.5% respectively. As of March 31, 2023, the Bank had a nationwide distribution

network of 7,821 branches and 19,727 Automatic teller machines (ATMs) / Cash Deposit & CDMs (Withdrawal Machines) across 3,811 towns/cities. 1,41,000 plus employees, 2,43,888 POS terminals, Four crore debit cards, and 1.76 crore credit cards.

HDFC is the world's 10th largest bank by market capitalization as of April 2021. On 14 September 2022, the HDFC became the first lender and the Third Indian company after the reliance industries and TCS to cross the ₹ 9.28 billion market capitalization on the Indian stock exchanges for the first time as per the data published by IMF in 2021.

Percentage Share of Shareholders

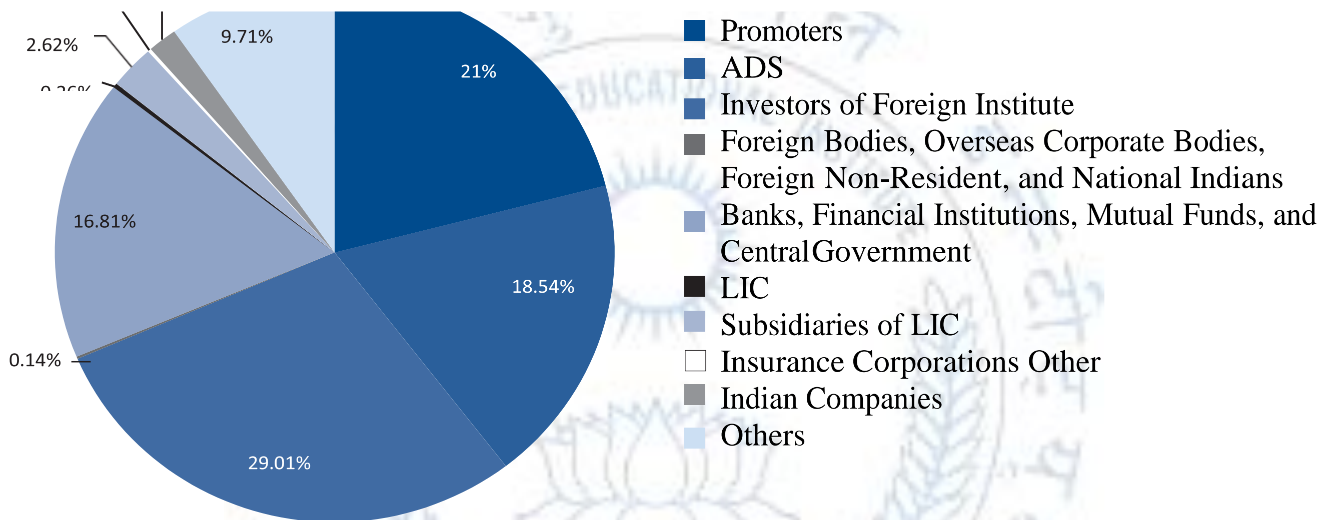


Diagram 1 (Source: Annual report 2021-22)

Table 1: SHAREHOLDING DISTRIBUTION AS AT MARCH 31, 2022

Share Range From	d% To Capital	No. of Holders	% Tot No. of Holders
1-2500	3.85	22,27,914	98.75
2,501-5000	0.98	14,836	0.66
5,001-10,000	0.78	6,148	0.27
10,001-15,000	0.39	1,757	0.08
15,001-20,000	0.29	908	0.04

20,001-25,000	0.23	572	0.02
25,001-50,000	0.87	1,348	0.06
50,001-1,00,000	1.10	862	0.04
1,00,001-9,99,99,99,999	91.51	1,816	0.08
TOTAL	**100.00**	**22,56,161**	**100.00**

Source: Annual report 2021-22

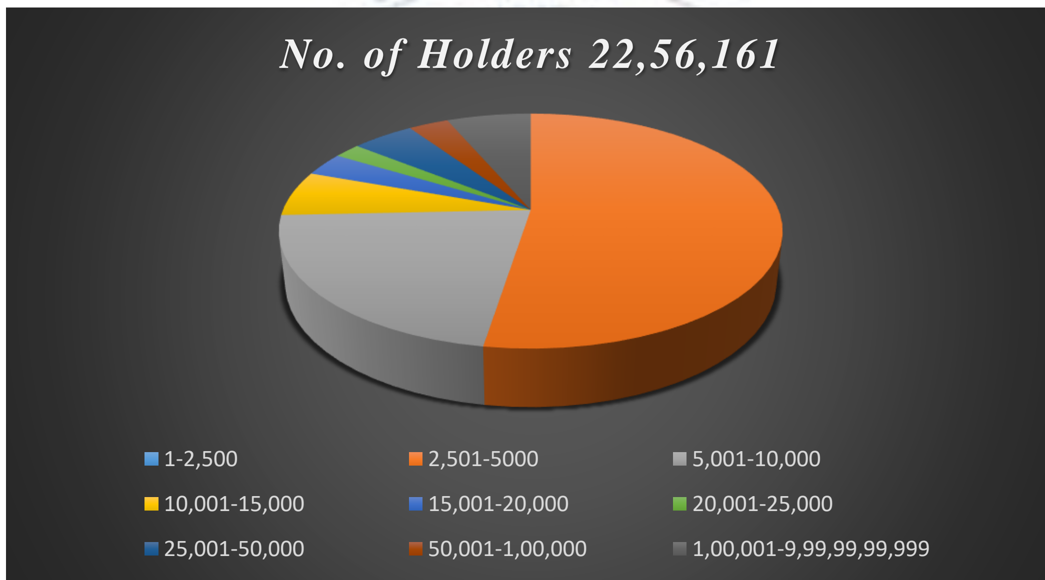


Diagram 2: Pie chart of the Number of shares

22,33,831 Folios comprising 5,53,38,32,585 equity shares forming 99.79% of the share capital are in demat form. 22,330 Folios comprising 1,17,08,391 equity shares forming 0.21 % of the share capital are in physical form.

Financial Performance for the year ended 31st March 2022 interpretation

Balance Sheet

The Balance Sheet has been strong enough during the pandemic and has increased after that. The asset quality regularly remains healthy and good among the whole banking industry. The Balance Sheet raised by 18.4% to now Rs. 20,68,535 Crores over ` 1,746,871 crores on March 31, 2021, and Net Profit increased by 18.8% to `36,961.3 Cr. Gross NPA decreased to 1.17% from 1.32% and Net Non-Performing Assets: to 0.32%. Capital Adequacy Ratio (CAR): 18.9%. ROA (return on assets) was at a healthy 2.03% and the return on equity (ROE) was at a healthy 16.9%. their commitment to

shareholders remained high with a pay-out of the proposed dividend is `15.50 per equity share of `Rs. 1, which converts to a payout ratio of a dividend of 23.28% for the financial year ending March 31, 2022.

Deposits

Total Deposits increased by 16.8% to ` 1,559,217 crores from Rs. 1,335,060 crores. Savings Account Deposits increased by 26.8% to ` 511,739 crores while CAD increased by 12.8% to ` 239,311 crores. Time Deposits at ` 808,168 crores, showing an increase of 12.3%. CASA Deposits is 48.2% of Total Deposits. Advances are at ` 1,368,821 crores, showing an increase of 20.8%. The domestic Loan of Rs. 1,337,504 crores increased by 20.3% over March 31, 2021.

Statement of profit and loss

The financial performance of the HDFC Bank for the year ended March 31, 2022, understood healthy with Total Net Revenue (Net Interest & Other Income) increasing 12.7% to Rs. 101,519.5 crores from Rs. 90,084.5 crores in the last year, Total Income`1,57,263 Cr, 7.7%.

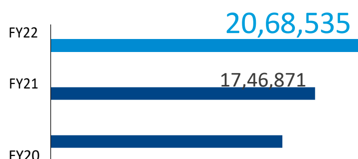
Net Profit after tax Rs. 36,961 Cr, Cost-to-income ratio: 36.9%. Revenue growth was driven by an increase in both Net Interest Income and Other Income. Net Interest Income grew by 11.0 percent to ` 72,009.6 crores and a Net Interest Margin(NIM) of 4.0 percent. Other Income grew by 17.1 percent to ` 29,509.9 crores. The largest component of the bank was Fees and Commissions at ` 19,536.6 crores. Gain on Revaluation and Sale of Investments was Rs. 2,282.6 crore. Foreign Exchange and Derivatives Revenue was ` 3,907.9 crore and recoveries from written-off accounts were ` 2,765.1 crore. Total Direct (CBDT) and Indirect taxes (GST & CBIC) collected for the Govt. 6,33,582.37 Cr.

Dividend

The Board of Directors of the Bank, at its meeting held on April 23, 2022, has recommended a dividend of ` 15.50 (Fifteen Rupees Fifty Paise only) per equity share of ` 1/- (Rupee 1 only) each, for the financial year ended March 31, 2022. This translates to aDividend Payout Ratio of 23.28 % of the profits for the financial year ended March 31, 2022.

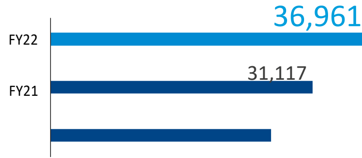
In general, your Bank's dividend policy, among other things, balances the objectives of rewarding shareholders and retaining capital to fund future growth. It has a consistent track record of dividend distribution, with the Dividend Payout Ratio ranging between 20 percent and 25 percent, which the Board endeavors to maintain.

Financial Performance indicators



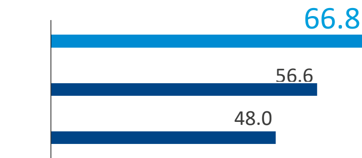
PROFIT AFTER TAX

(C CR)



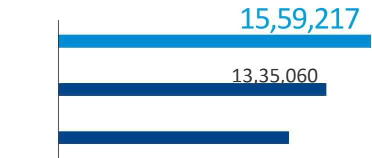
EARNINGS PER SHARE

(C CR.)



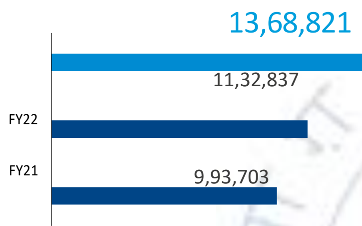
DEPOSITS

(C CR)



ADVANCES

(C CR)



FY20

RETURN ON EQUITY

(%)

FY20

GROSS NPA RATIO

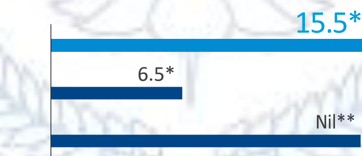
FY20

RETURN ON ASSETS

(AVERAGE)

DIVIDEND PER SHARE

(C)



COST-TO-INCOME RATIO

Diagram: 3 **(Source; Annual integrated report)**

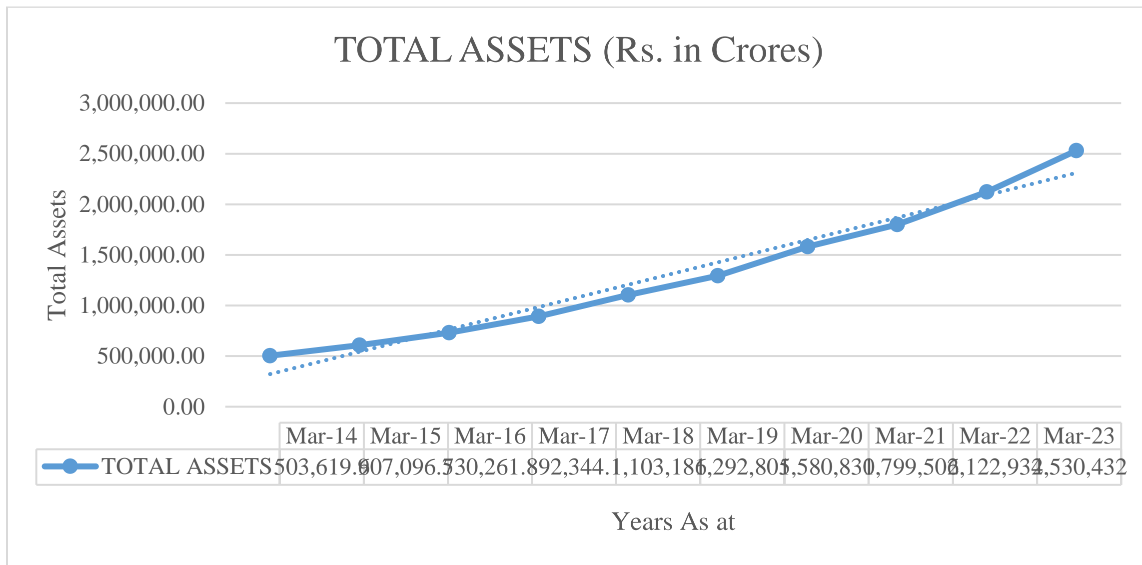


Diagram 4:Total Assets trend in ten years

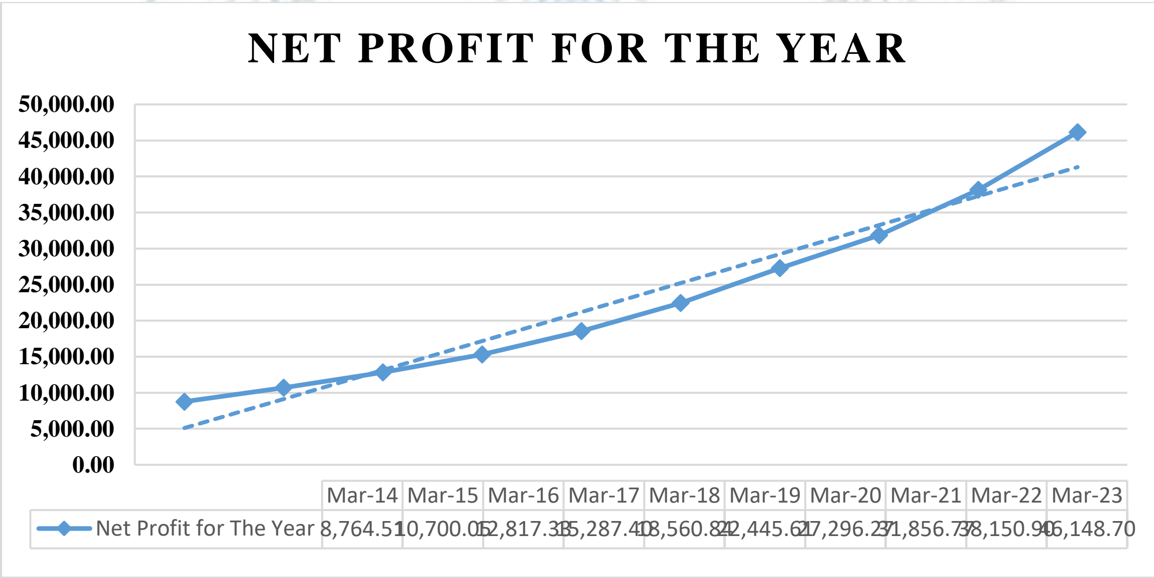


Diagram 5:Net Profit trend in ten years

Review of literature

N. K. Shanmugam * and T. Yamuna (2023), the financial strengths and weakness of the bank can be determined by Financial performance analysis by correctly defining the relationship between the components of the balance sheet and profit and loss account. It also helps in short-term and long-term forecasting, as well as growth identification by using financial performance analysis, and various types of financial techniques.

The study conducted by (Nandini Thakur (2020)) on the HDFC banks' financial statement analysis. The period for the study was over the past five years (2015-2019). They concluded that the financial performance of the HDFC bank was strong during the past five years. (Malini, & Meharaj Banu (2019)), The authors examined the Indian Tobacco Corporation Ltd. Entitiy's financial performance the objective of the study was to analyze the profitability, liquidity, and Solvency position of the entity over the period from 2013-14 to 2016-17. The study revealed that the financial performance was better. (Sudha & Rajendran (2019)), they both Conducted a study on the financial health of Axis and HDFC Bank for the period of four years that is 2013-14 to 2017-18 by analyzing data using ratio analyses and various statistical tools. The study concluded that the overall financial performance of Axis Bank is lower as compared to the HDFC Bank.

Methodology:

Source of Data:

The study is based on secondary data. The data were collected from the integrated annual reports from 2013-14 to 2022-23 (ten years) from the official website of HDFC bank and the published research paper in journals, magazines, and research projects of master levels.

To assess the financial performance of the bank, the study adopted ratio analysis and trend line diagrams with the use of MS Excel.

Period of Study:

The study covers a period of ten years from 2012-13 to 2022-2023.

Sampling:

The new private sector banks consist of twenty-one banks. In the present study, the researcher covers only one top private sector bank which is Housing Development Financial Corporation (HDFC).

Scope of the Study:

The research paper covers only one important new private sector bank Housing Development Financial Corporation(HDFC).

Limitations of the Study:

The major limitation of the present study is that the analysis is restricted to one particular sector such as banking. It is confined to only measure the financial performance of only one top private sector bank that is HDFC. The inherent limitation is secondary data. The published data is not uniform and not properly disclosed by the banks. Hence, this may be taken as another limitation.

Key Financial Ratios (in Rs. Cr.)

A. Per Share Ratios

Ratios/Year	Mar 23	Mar 22	Mar 21	Mar 20	Mar 19	Mar 18	Mar 17	Mar 16	Mar 15	Mar 14
BEP (Rs.)	82.64	68.77	57.88	49.84	83.33	71.73	59.95	50.85	44.1	36.58
Cash EPS (Rs.)	82.71	71.83	60.3	52.11	86.9	75.25	63.12	53.62	45.4	39.4
BVPS (Rs.)	518.73	445.99	380.59	321.63	564.29	422.33	358.21	293.9	251.96	184.1
ORPS (Rs.)	306.03	245.13	233.19	222.84	386.15	328.65	285.93	249.83	202.14	177.38
NPPS (Rs.)	82.71	68.8	57.79	49.78	82.42	71.52	59.66	50.7	42.69	36.53
NP after MI & SOA / Share (Rs.)	82.44	68.62	57.74	49.7	82	71.33	59.52	50.63	42.64	36.45

Table 2 Source: computed by the researcher

Analysis and interpretation

For analysis of per share ratios, the researcher computed six ratios. These are as follows: basic earnings per share (BEPS), cash EPS, book value per share, net profit per share, and net profit after MI and SOA per share. BEPS indicates how much profit is allocated to each equity shareholder. In Table 1 the highest BEPS ratio at the year ended March 2019 while the lowest in 2014. Cash EPS means cash generated by banks for their shareholders. The highest cash EPS ratio at the year ended March 2019 while lowest in 2014. Book value per share (BVPS) means the minimum value of a bank's equity and it also measures the book value of a bank on a per-share basis. The highest BVPS ratio at the year ended March 2019 while the lowest was in 2012. Operating revenue per share (ORPS) means total revenue earned per share. The highest ORPS ratio at the year ended March 2019 while the lowest was in 2014. Net profit per share (NPPS) is profit per share. NPPS is highest for the year ended 31st March 2023 however lowest in 2014. Net profit after MI and SOA per share is highest for the year ended 31st March 2023 however lowest in 2014.

B. Per Employee Ratios

Ratios/Year	Mar 23	Mar 22	Mar 21	Mar 19	Mar 19	Mar 18	Mar 17	Mar 16	Mar 15	Mar 14
Interest Income/ Ee (Rs.)	0	9023451.15	10063719.49	9815479.98	10092906.51	9092195.73	8218909.91	6878127.47	6353708.99	6034700.15
Net Profit/ Ee (Rs.)	0	2610652.37	2591035.71	2244771.35	2149495.24	1981431.6	1725424.39	1404398.73	1339160.38	1243801.97
Business/ Ee (Rs.)	0	206813042.29	205498809.4	183054361.58	177699813.9	163972185.69	142094024.12	115472348.91	107003994.66	98340460.49

Table 3 Per employee ratios computed by the researcher

Analysis and interpretation

The per-employee ratio is computed to analyze the indicators about each employee. In this ratio, mainly three ratios are analyzed such as business, net profit, and interest income per employee. Due to the unavailability of 2023 data, the researcher is unable to compute these ratios. With the help of interest income per employee we determine the profitability and growth of the bank per employee. It is highest for the year ended 31st March 2019 however lowest in 2014. Net profit per employee indicates how much profit brings by each employee in the bank. It is highest for the year ended 31st March 2022 but lowest in 2014. Business per employee is computed to analyze the productivity of each employee. It is highest for the year ended 31st March 2022 but lowest in 2014.

C. Per Branch Ratios

Per branch, ratios are of mainly three types. the author analyzed the paper as per data given in the HDFC annual report of latest ten years.

Interest income per branch, net profit per branch, and business per branch.

Interest income per branch:- it means how much income is earned by each branch.

Net profit per branch:- it means how much net profit is earned by each branch.

Business per branch:- This ratio indicates how effectively the business is operated by each branch of HDFC.

The researcher is unable to get 2023 data related to these ratios.

Ratios/ Year	Mar 23	Mar 22	Mar 21	Mar 20	Mar 19	Mar 18	Mar 17	Mar 16	Mar 15	Mar 14
Interest Income/ Branch (Rs.)	0	201439796.75	215510389.62	211987907.87	193948756.61	167623469.81	146990366.49	133233285.62	120752128.55	120880204.53
Net Profit/ Branches (Rs.)	0	58280282.256	55485957.92	48481009.97	41305438.57	36529618.34	30858199.79	27204011.28	25450719.73	29914416.99
Business/ Branches (Rs.)	0	4616900617.16	4400671989.48	3953480747.42	3414740633.16	3022986693.96	2541267992.36	2236765820.58	2033609052.57	1969843517.19

Table 4 Per branch ratios computed by the researcher

Analysis and interpretation

For analysis of per-branch ratios, ten years of data have been taken. Interest income per branch is highest in the year March 2021 while lowest in 2014 the reason may be due to inflation or growth and development of banks and continuous increase in the branches of HDFC (Domestic and foreign), net profit per branch is highest in the year march 2022 while lowest in 2015 the reason may be due to mounting bad loans. business per branch is highest in the year ended March 2022 while lowest in 2014.

Key Performance Ratios

Key performance ratios simply are derived from the components of the statement of profit and loss that is from revenue, expenses, and profits of the banks which are published in the income statement of the banks. These ratios also measure the ability of a business to generate profits. These ratios include current account savings accounts (CASA), return on capital employed (ROCE), net profit margin (NPM), operating profit margin (OPM), Return on Equity or Net worth (ROE), Return on Assets (ROA), Net Interest Margin (NIM), Cost to Income (CTI), non-interest income to total assets (NIOA), Interest Income/Total Assets or interest on assets (IOA), Operating Profit/Total Assets (OPA), Interest Expenses/Total Assets (IEA), and Operating Expenses/Total Assets (OEA), etc.

Ratios/Year	Mar 23	Mar 22	Mar 21	Mar 20	Mar 19	Mar 18	Mar 17	Mar 16	Mar 15	Mar 14
ROCE (%)	3.1	3.38	3.57	3.43	3.45	3.32	3.28	3.24	3.2	3.24
CASA (%)	100	48.13	46.07	42.18	42.35	43.48	48.03	43.26	44.03	44.79
NPM (%)	27.02	28.06	24.78	22.33	21.34	21.76	20.86	20.29	21.11	20.59
OPM (%)	7.16	4.7	3.51	1.97	3.32	2.93	3.28	2.54	2.27	1.09
ROA (%)	1.81	1.79	1.76	1.72	1.72	1.67	1.7	1.75	1.76	1.73
ROE (%)	15.89	15.38	15.17	15.45	14.53	16.88	16.61	17.22	16.92	19.79
NIM (times)	3.67	3.64	3.85	3.79	3.97	3.88	3.94	3.98	3.85	3.79
CTI (%)	39.44	42.31	41.55	39.18	38.63	39.86	38.09	36.95	36.9	36.66
IOA (times)	6.74	6.4	7.14	7.72	8.13	7.73	8.21	8.64	8.34	8.44
NIOA (%)	1.34	1.49	1.51	1.57	1.46	1.45	1.44	1.53	1.57	1.64
OPA (%)	0.48	0.3	0.25	0.15	0.27	0.22	0.27	0.21	0.19	0.09
OEA (%)	2.03	1.89	1.94	2.08	2.14	2.16	2.32	2.44	2.4	2.47
IEA (%)	3.07	2.75	3.29	3.39	4.15	3.84	4.26	4.66	4.49	4.65

Table 5 Key performance ratios computed by the researcher

Analysis and interpretation

ROCE indicates the ratio used to assess a bank’s capital efficiency and profitability. In the case of banks, ROCE between 1 to 10 is considered low. As clearly shown in Table 5 in ten years of data, the ratio is less than 10 which is low. It is highest in the year ended March 2021 while lowest in March 2023 which is 3.1 as per data available in integrated annual reports.

The amount which is deposited in the Current and Savings accounts of customers is CASA. CASA is used by Banks for generating the highest profit margin because the cost of CASA is very low. The ideal CASA ratio is 70 percent which is the highest. In the recent ten years, the highest CASA ratio was in 2023 which is 100 while the lowest was in March 2020.

Net profit margin refers to the net profit produced by the revenue of the banks. The highest net profit margin for the year ended 31st March 2022 while the lowest was in March 2016. The average NPM consider in the case of banks is 10 percent while 20 percent is considered high and 5 percent is

considered as lowest. Negative NPM temporarily abruptly stops the activities which negatively impacts the investors. It also affects credit access.

OPM (operating profit margin) is the performance or profit ratio that indicates the profit produced from the operation. It is highest in March 2023 and lowest in March 2014.

Valuation Ratios

Ratios/ Year	Mar 23	Mar 22	Mar 21	Mar 20	Mar 19	Mar 18	Mar 17	Mar 16	Mar 15	Mar 14
EV (Rs. Cr)	2920214.84	2470099.59	2237407.93	1733489.71	1664284.82	1330977.41	1073235.28	858379.49	738616.5	570972.73
EV Per Net Sales	17.1	18.17	17.4	14.19	15.83	15.61	14.65	13.59	14.58	13.42
P/ BV (times)	3.1	3.3	3.92	2.68	4.11	4.48	4.03	3.64	4.06	4.07
Price To Sales (times)	5.26	6	6.4	3.87	6	5.76	5.04	4.29	5.06	4.22
Retention Ratios (%)	100	100	100	93.95	81.85	100	100	81.23	81.24	81.2
Earnings Yield (times)	0.05	0.05	0.04	0.06	0.04	0.04	0.04	0.05	0.04	0.05

Table 6 Valuation ratios computed by the researcher

Analysis and interpretation

The valuation ratios measure the relationship between market value and equity and also with other indicators. The researcher computed five valuation ratios for analyses purpose. Enterprise value (EV) measures the bank's overall value. It is also used as a comprehensive alternative to computing market capitalization. It is highest in March 2023 and lowest in March 2014. EV per net sales computes the bank's total valuation compared to its net sales. It is highest in March 2022 and lowest in March 2014. Price to book value (P/BV) indicates the ratio of the market price of a bank's stock to its book value per share. It is highest in March 2018 and lowest in March 2020. The price-to-sales ratio compares the bank's stock price to its revenue. It is highest in March 2021 and lowest in March 2020. The retention ratio represents the percentage of net income that is retained to grow the business rather than being paid out as dividends. It is highest in five out of ten years while lowest in March 2014.

Conclusion

The distribution Schedule of shareholding of HDFC according to the range (1-2500 number of shares) is very high which is 98.75 percent. Net profit during the year 2021-22 increased as compared to 2020-21 which is an 18.78 percent increase. Total Net Revenue (here Net Interest Income and

Other Income) rose 12.7 percent to Rs. 101,519.5 crores from Rs. 90,084.5 crores in the previous year, Total Income` 1,57,263 Cr, 7.7%.

Net Profit after tax Rs. 36,961 Cr, Cost-to-income ratio: 36.9%. Revenue growth was driven by an increase in both Net Interest Income and Other Income. Net Interest Income grew by 11.0 percent to ` 72,009.6 crores and a Net Interest Margin (NIM) of 4.0 percent. The Balance Sheet increased by 18.4% to Rs. 20,68,535 Cr over ` 1,746,871 crores on March 31, 2021, and Net Profit increased by 18.8% to `36,961.3 Cr. GNPA decreased to 1.17% from 1.32% and Net NPA: 0.32%. Capital Adequacy Ratio: 18.9%. ROA was at a healthy 2.03% and ROE at a healthy 16.9%.

There is an increasing trend in both total assets and net profit of the HDFC bank for the last ten years.

Total Deposits rose by 16.8% to ` 1,559,217 crores from ` 1,335,060 crores. Savings Account Deposits grew by 26.8% to ` 511,739 crores while Current Account Deposits rose by 12.8% to ` 239,311 crore. Time Deposits stood at ` 808,168 crores, representing an increase of 12.3%. CASA Deposits accounted for 48.2% of Total Deposits.

The researcher computed five types of financial ratios such as per share ratio, per employee ratio, per branch ratio, valuation, and key performance ratios.

All the per-share ratios show an increasing trend. Per-employee ratios also showed an increasing trend, Per branch ratios are also showing an increasing trend in the last ten years. Key performance ratios are also showing an increasing trend except for 4-5 ratios and valuation ratios are also showing an increasing trend in the last ten years. The all-over paper shows that based on the author's analytical interpretation is better year by year.

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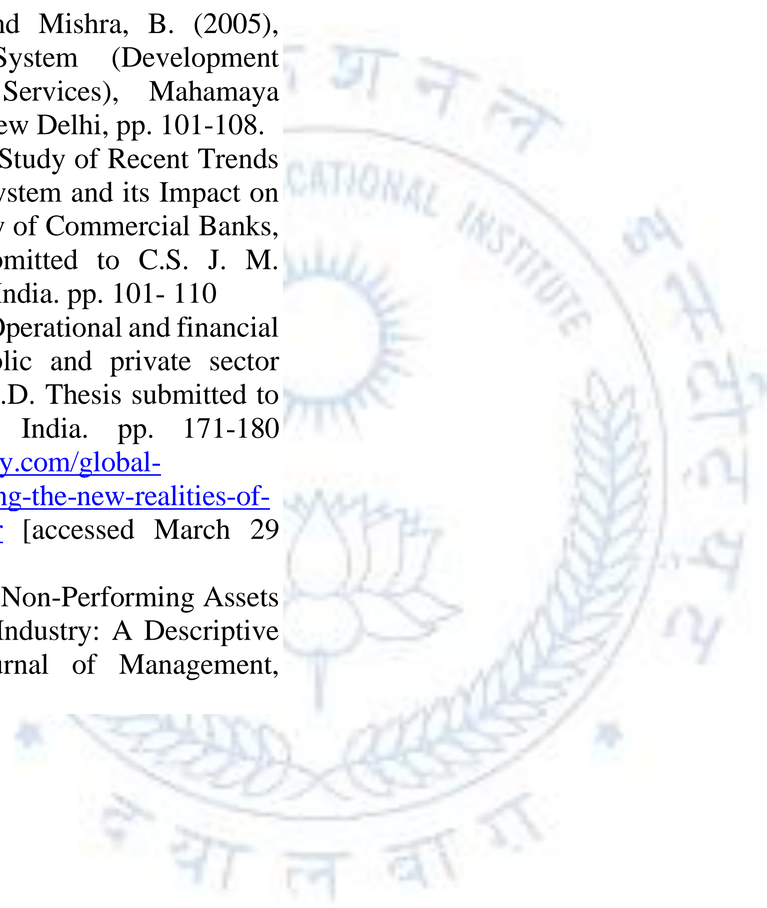

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कोविड-19 के प्रभावों को लेकर अंतरराष्ट्रीय गोष्ठी

राष्ट्रीय खबर ब्यूरो

आगरा। दयालबाग शिक्षण संस्थान में 'इंपैक्ट ऑफ कोविड-19 ऑन हमपर' विषय पर अंतर्राष्ट्रीय संगोष्ठी का आयोजन किया गया, जिसमें मुख्य अतिथि संस्थान के कुलसचिव प्रो आनंद मोहन रहे। उन्होंने दीप प्रज्वलित करके उद्घाटन सत्र का शुभारंभ किया। मुख्य वक्ता प्रो उमेश होलानी, पूर्व उपकुलपति जीवाजी विश्वविद्यालय, ग्वालियर ने मानवीय मूल्यों के महत्व विषय पर अपने विचार रखें। विशिष्ट अतिथि प्रो आर सी गुप्ता, महारानी लक्ष्मीबाई आर्ट्स एंड कॉमर्स कॉलेज, जीवाजी विश्वविद्यालय, ग्वालियर एवं प्रो मुकेश जैन, डीन रिसर्च, चौधरी चरण सिंह विश्वविद्यालय, मेरठ रहे। देश- विदेश के वक्ता ऑनलाइन माध्यम से भी जुड़े। डॉ आनंद एस, डायरेक्टर पोस्टग्रेजुएट स्टडीज एंड रिसर्च, मस्कट विश्वविद्यालय, प्रो सीमा वार्ष्णेय, फाइनेंशियल सर्विस मार्केटिंग एंड रिसर्च, ओमान विश्वविद्यालय, डॉ राधे एस प्रधान, त्रिभुवन विश्वविद्यालय, काठमांडू, नेपाल एवं प्रो ए के गोयल, डायरेक्टर, बिजनेस स्टडीज जय नारायण व्यास विश्वविद्यालय, जोधपुर एवं प्रो कृष्ण अवतार गोयल, डायरेक्टर डिपार्टमेंट ऑफ बैंकिंग एंड फाइनेंस रिसर्च, जयनारायण यूनिवर्सिटी, जोधपुर रहे जिन्होंने कोविड-19 के प्रभावों के विषय में बताया। कॉन्फ्रेंस चेयरमैन प्रो एल एन कोली ने बताया कि इस अंतर्राष्ट्रीय संगोष्ठी में कोविड से संबंधित कई ऐसे ज्वलंत मुद्दों पर मंथन किया गया। वर्ष 2019-20 में कोविड महामारी ने विश्व के आर्थिक, सामाजिक, मानवीय एवं धार्मिक मूल्यों के साथ शैक्षिक मूल्य पर धनात्मक एवं नकारात्मक प्रभाव डाला एवं कन्वीनर डॉ अनीशा सत्संगी ने बताया कि इस संगोष्ठी में इलाहाबाद कानपुर ग्वालियर मथुरा दिल्ली मेरठ लखनऊ विश्वविद्यालय के प्राध्यापकों ने शोध पत्र प्रस्तुत किए। संचालन को कन्वीनर डॉ निशीथ गौड़ एवं डॉ कविता रायजादा ने किया एवं धन्यवाद ज्ञापन प्रो वी के गंगल, संकाय प्रमुख, वाणिज्य संकाय,डी ई आई ने किया। इस अवसर पर प्रो जे के वर्मा, प्रो जी एस त्यागी,प्रो एसके चौहान, प्रो स्वामी प्यारा सत्संगी, डॉ राजेंद्र खटिक, एसोसिएट प्रोफेसर जीवाजी विश्वविद्यालय, डॉ रुचिरा प्रसाद, असिस्टेंट प्रोफेसर पदमचंद जैन इंस्टीट्यूट, डॉ स्वाति माथुर, असिस्टेंट प्रोफेसर सेठ पदमचंद जैन इंस्टीट्यूट आदि उपस्थित रहे।

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Prof. Laxmi Narayan Koli, currently serving as a Professor in Department of Accountancy & Law, Faculty of Commerce, Dayalbagh Educational Institute (Deemed to be University) Agra, Uttar Pradesh has persuaded M.com. in 1997 and Ph.D. in 2000 from University of Rajasthan, Jaipur, in Department of ABST along with NET(JRF) from UGC, New Delhi, SLET from RPSC, Ajmer and D.Litt. from Dr. Bhim Rao Ambedkar University, Agra in 2007.

Prof. Koli has twenty-three years of teaching and research experience in Auditing, Management Accounting, Social Accounting and International Financial Management etc. He has participated and presented papers in IInd Round Table Conference at GNDU Amritsar (organized by All India University Association, New Delhi) and other important Conferences (All India Accounting Association and All India Commerce Association). He has published more than 56 noteworthy Articles and Research Paper in reputed Journals and Magazines like The Management Accountant and BVIMR Management edge. He has also published 8 Books in the field of Commerce and Management. More than 16 Ph.D Theses and more than 12 M.Phil Dissertations have been guided by him. He has organized more than Ten National and International Conferences under his Chairmanship.

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