



A COMPARATIVE PROFITABILITY ANALYSIS OF SELECT RETAIL COMPANIES WITH REFERENCE TO PRE AND DURING COVID-19 PERIOD

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ABSTRACT

The objective of the article is to evaluate and compare profitability of select retail companies of India. The research includes top three Retail companies Future Retail Limited, Aditya Birla Fashion & Retail Limited and Avenue Super Mart Limited, which is also listed in National Stock Exchange. The research is Quantitative in nature and includes financial records as prescribed by SEBI for analysis. The result clearly indicates that, Covid-19 has impacted the Retail companies. All the three companies were financially impacted due to the world-wide pandemic known as Covid-19. The first financial quarter of Covid-19, from 1st April 2020 to 30th June 2020, has shown decline in Net Profit, Operating Income and Return on Equity of all the selected Retail companies. Avenue Super Mart Limited has topped in all the profitable parameters on the basis of comparative analysis of the three companies. However, Future Retail Limited needs to make changes in their strategy for maintaining or resorting their profit. This will help the Retail Managers to adopt the best practises followed by the leaders. Finally, the outcome will enhance the understanding of the impact of Covid-19 on the profitability of Retail companies, for policy makers, researcher and academicians. **Keywords:** Covid-19, Retail Companies and Profitability

INTRODUCTION

Indian Economy is struggling with slow economic activity due to global pandemic situation. Covid-19 is not just a term but a threat for all economy. It has resulted in tremendous decrease in global and local trade. India has recorded the lowest and slowest growth rate of 5.3% in the last 11 years.¹

RETAIL

Retail sector which contributes 10 % of India's Gross Domestic Product witnessing a turbulence due to Covid-19. It is considered as an important pillar of its economy. It plays a vital role in positively contributing to GDP and giving employment to 8 % of working population.² Indian Retail Industry includes individuals and groups involve in marketing of ready products to

the consumers. It comprises of all shops, malls and stores that sells products to buyers.

The Retail sector composition consist of majority Apparel & Footwear, followed by Consumer durables & IT, Jewellery & Accessories, Health & Entertainment, Home Décor & Furnishings, Beauty & Personal Care and other products. In fact, India is ranked 5th largest global destination in the retail space. Opening of economy and simplification of lock down check will help the Retail sector to unleash its potential.

Retail giants with huge potential to invest must take an appropriate step to overcome from unexpected pandemic circumstances. They must take a strategical move. They may also use various concepts of cost accounting in order to minimize their cost and maximize their output. They must analyse their financial statements and

impact on their company. It will help them to recover and boost the economy.

PROFITABILITY

The ability to keep business surviving is profitability. There is no business which can survive for a long run without earning profit. These profits are distributed among entrepreneurs, employees and other stakeholders. However, it was a challenging task for most of the retail giants for maintaining their profits during Covid-19.

Every business must calculate or analyse profitability of their firm for keeping a track of its profit. There are various ways to measure a profitability of an organisation, which includes calculation related to Net Profit Margin, Operating Profit Margin, Gross Profits Margin, Earning Before Interest and Tax, Return on Investment and Return on Capital Employed. Profitability research helps a firm to increase their earning and thus resulting into optimising opportunities for business.

REVIEW OF LITERATURE

In order to proceed, the researchers have identified the following literatures for their study. The literatures are based on Profitability, Retail Industry and Covid-19 & Economy

PROFITABILITY

Amirthalingam, Nishanthini & Balasundaram, Nimalathan. (2013) have observed profitability helps to understand the financial ability of a firm. It can be used as a tool to differentiate among same class of companies and it help the company to make policy.

Tulsian, Monica. (2014) has pointed on an important fact that, Net Income along cannot be a good indicator of a profitability. So, we need to also consider figures related to sales, cost of goods sold, capital employed, operating expenses, etc.⁴

RETAIL INDUSTRY

Zeller, Donna. (2017) has coined that, retail owners may find easier to establish themselves in domestic market but it becomes challenging when it comes to settle on a global markets. The study provided a better strategy to overcome from challenges.⁵

Sansone, Marcello & Colamatteo, Annarita. (2017) have studied that, the strength of a Retail business depends on the ability of the entrepreneur to direct the resources for favourable outcome.⁶

Covid-19 & Economy

Agarwal, Ms. S. & Singh, Archana. (2020) have correctly indicated that, Covid-19 will have an adverse effect on Indian economy. However, they highlighted a fact that the Covid-19 has sudden and sort term growth for few businesses.⁷

Roy, Shohini. (2020) has explained that, Covid-19 had global impact on the world economy. It also represented the loss in various sector of the economy due to Covid-19.⁸

Research Gap

Through the above review of literatures, it is assumed that, there is no such research article which performed "A Comparative Profitability Analysis of Select Retail Companies with Reference to Pre and During Covid-19"

OBJECTIVES OF THE ARTICLE

The following objectives has been drawn on the basis of the review of literatures and research gap,

1. To study the impact of Covid-19 on the Net Profit of select Retail Companies
2. To study the impact of Covid-19 on the Operating Income of select Retail Companies
3. To study the impact of Covid-19 on the Return on Equity of select Retail Companies

RESEARCH PROBLEMS OF THE ARTICLE

On the basis of the above objectives, the following research problem has been identified

To study, compare and analyse the impact of Covid-19 on the Profitability of select Retail Companies.

H₁: There is a significant relation between Covid-19 and the Return on Equity of select Retail Companies

HYPOTHESES OF THE ARTICLE

HYPOTHESIS 1

H₀: Covid-19 has no significant effect on the Net Profit of select Retail Companies

H₁: Covid-19 has significant effect on the Net Profit of select Retail Companies

HYPOTHESIS 2

H₀: Covid-19 has no effect on the Operating Income of select Retail Companies

H₁: Covid-19 has effect on the Operating Income of select Retail Companies

HYPOTHESIS 3

H₀: There is no significant relation between Covid-19 and the Return on Equity of select Retail Companies

RESEARCH METHODOLOGY

TYPE OF RESEARCH

The current article is Quantitative in nature as it deals with the data related to financial statements. It can be simplified as Comparative research as the article will compare the Net Profit, Operating Income & Return on Equity of Per Covid-19 and During Covid-19

SOURCES OF DATA COLLECTION

The research is based on secondary data. Here, the researchers have made possible effort to collect an authenticated data from the government recognised websites like NSE, BSE, SEBI, etc.

SAMPLING

The researchers have chosen the top 3 list companies of Retail. Therefore, no sampling techniques has been used for the given article.

SR. NO.	NAMES OF COMPANIES
1	Future Retail Limited
2	Aditya Birla Fashion and Retail Limited
3	Avenue Supermarts Limited

REFERENCE PERIOD OF THE ARTICLE

As the research is to evaluate comparative profitability for pre and during Covid-19, therefore 3 Quarterly financial report from Pre Covid-19 period is taken to compare with the 3 Quarterly financial report of During Covid-19 period. So, in total 18 months are taken for the analyses due to constrain of data. Here, 9 months of Pre Covid-19 period includes financial data from July 2019 to March 2020 and 9 months of During Covid-19 period includes financial data from April 2020 to December 2020.

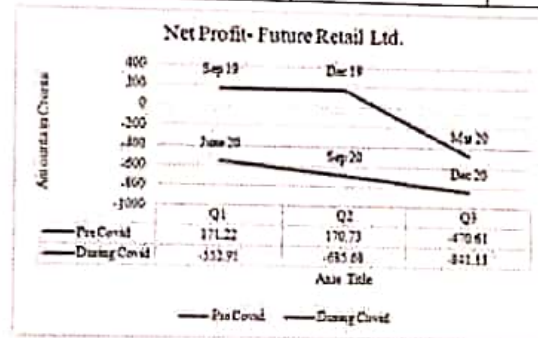
TOOL AND TECHNIQUES OF DATA ANALYSIS

In order to draw a strong conclusion, the researchers have calculated the mean, variance and t-Test for Net Profit, Operating Profit and Return on Equity of select Retail Companies.

For Future Retail Limited (Net Profit)

t-Test: Paired Two Sample for Means

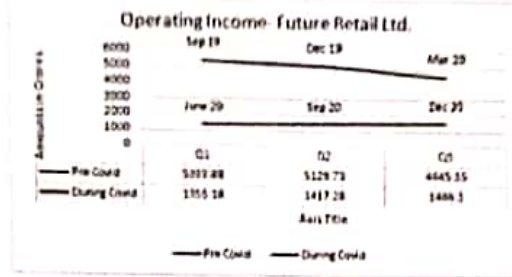
	Variable 1	Variable 2
Mean	-42.88666667	-693.24
Variance	137210.4974	20810.56
Observations	3	3
Pearson Correlation	0.888129615	
Hypothesized Mean Difference	0	
df	2	
t Stat	4.484146187	
P(T<=t) one-tail	0.02315274	
t Critical one-tail	2.91998558	
P(T<=t) two-tail	0.04630548	
t Critical two-tail	4.30265273	



For Future Retail Limited (Operating Income)

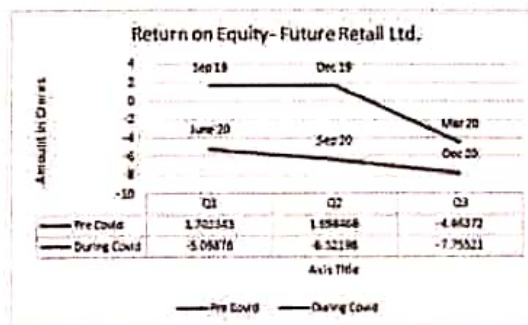
t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	4989.653	1419.587
Variance	239643.4	4302.104
Observations	3	3
Pearson Correlation	-0.97591	
Hypothesized Mean Difference	0	
df	2	
t Stat	11.16708	
P(T<=t) one-tail	0.003962	
t Critical one-tail	2.919986	

P(T<=t) two-tail	0.007924	
t Critical two-tail	4.302653	



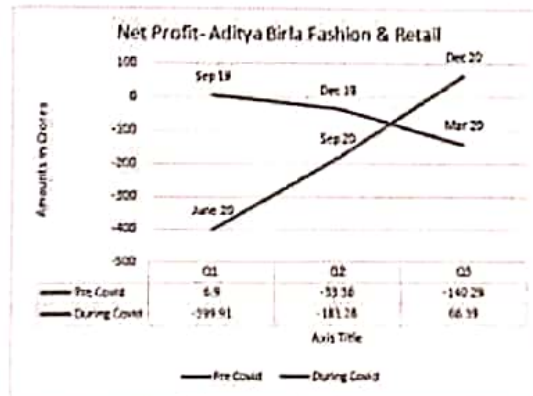
For Future Retail Limited (Return on Equity)

t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	-0.35397	-6.39198
Variance	12.66754	1.767858
Observations	3	3
Pearson Correlation	0.888241	
Hypothesized Mean Difference	0	
df	2	
t Stat	4.259378	
P(T<=t) one-tail	0.025472	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.050944	
t Critical two-tail	4.302653	



For Aditya Birla Fashion & Retail Limited (Net Profit)

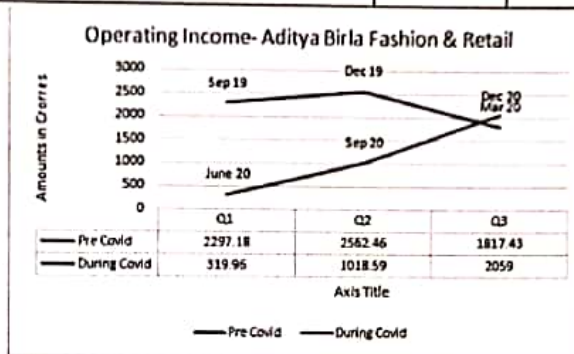
t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	-55.5833	-171.6
Variance	5786.631	54429.2
Observations	3	3
Pearson Correlation	-0.97593	
Hypothesized Mean Difference	0	
df	2	
t Stat	0.652453	
P(T<=t) one-tail	0.29054	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.58108	
t Critical two-tail	4.302653	



For Aditya Birla Fashion & Retail Limited (Operating Income)

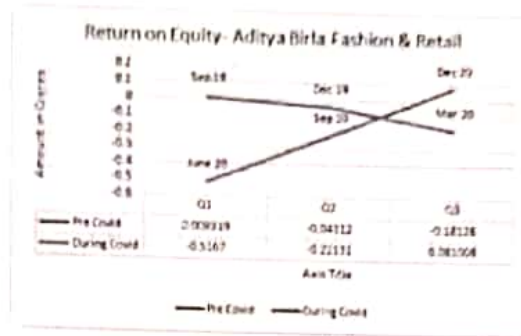
t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	2225.69	1132.517
Variance	142600.5	765799.5
Observations	3	3
Pearson Correlation	-0.71825	
Hypothesized Mean Difference	0	

df	2	
t Stat	1.609987	
P(T<=t) one-tail	0.124345	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.248691	
t Critical two-tail	4.302653	



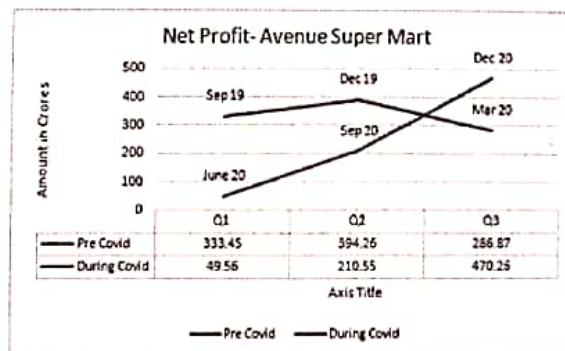
For Aditya Birla Fashion & Retail Limited (Return on Equity)

t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	-0.07182	-0.219
Variance	0.00966	0.089318
Observations	3	3
Pearson Correlation	-0.96917	
Hypothesized Mean Difference	0	
df	2	
t Stat	0.645609	
P(T<=t) one-tail	0.292357	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.584713	
t Critical two-tail	4.302653	



For Avenue Super Mart (Net Profit)

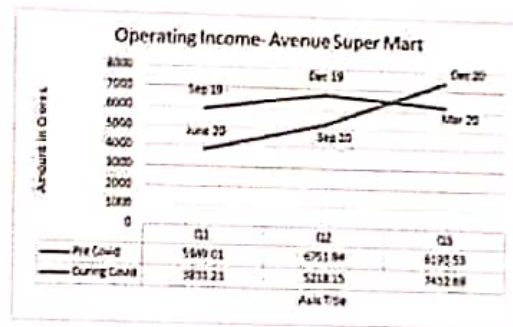
t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	338.1933	243.4567
Variance	2900.027	45059.26
Observations	3	3
Pearson Correlation	-0.54961	
Hypothesized Mean Difference	0	
df	2	
t Stat	0.666979	
P(T<=t) one-tail	0.286718	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.573435	
t Critical two-tail	4.302653	



For Avenue Super Mart (Operating Income)

t-Test: Paired Two Sample for Means		
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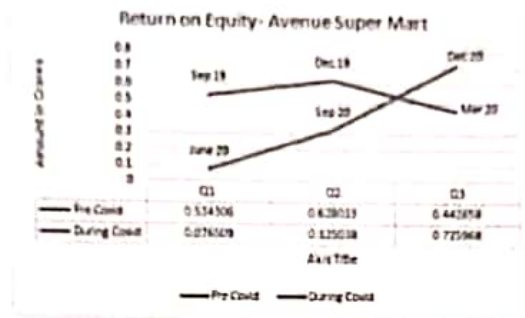
	Variable 1	Variable 2
Mean	6298.16	5494.69
Variance	169384.7	3296384
Observations	3	3
Pearson Correlation	0.168513	
Hypothesized Mean Difference	0	
df	2	
t Stat	0.776269	
P(T<=t) one-tail	0.259409	
t Critical one-tail	2.919986	
P(T<=t) two-tail	0.518819	
t Critical two-tail	4.302653	



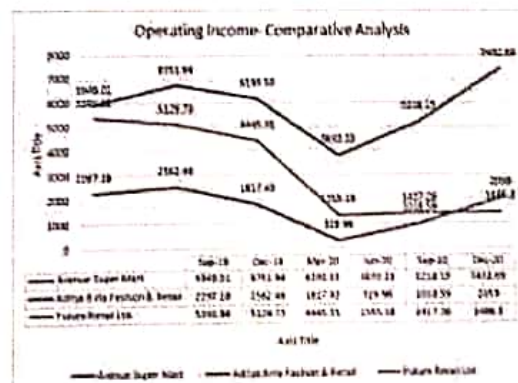
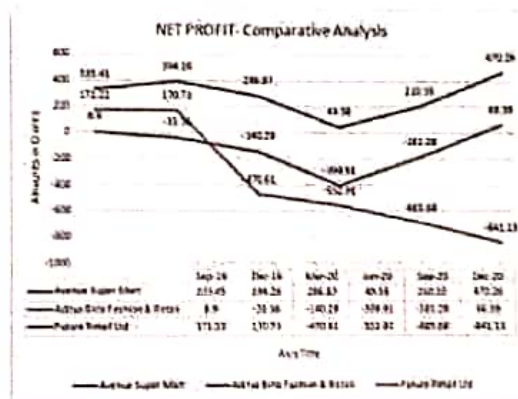
For Avenue Super Mart (Return on Equity)

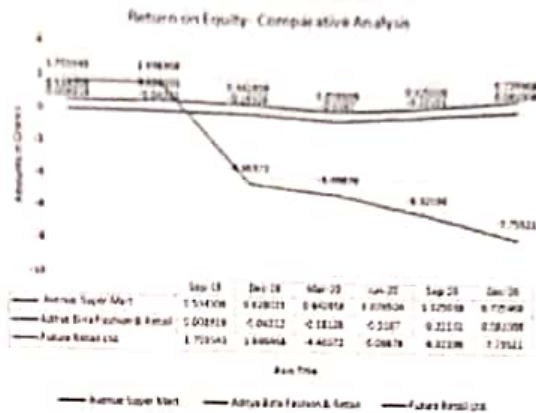
t-Test: Paired Two Sample for Means		
	Variable 1	Variable 2
Mean	0.535066	0.375838
Variance	0.008573	0.107385
Observations	3	3
Pearson Correlation	-0.6061	
Hypothesized Mean Difference	0	
df	2	
t Stat	0.705676	
P(T<=t) one-tail	0.276755	

t Critical one-tail	2.919986	
P(T<t) two-tail	0.553511	
t Critical two-tail	4.302653	



Comparative Analysis





SIGNIFICANCE OF THE ARTICLE

The current article plays a significant role for Retail Entrepreneurs, Strategic Managers, Merchandise Managers, Investor and other stakeholders to adopt an appropriate cost structure during this pandemic situation, so as to survive and sustain for a long run. The survival of the Retail companies are largely depends on the Profitability.

SCOPE OF THE ARTICLE

The following scopes are listed after considering all the importance factors

1. The article covers only top three listed Retail Companies of NSE
2. The study is only based on 18 months data, which includes 9 months data of during Covid-19
3. It will rank the companies on the basis of Profitability

LIMITATIONS OF THE ARTICLE

The study has certain limitations which are listed below,

1. The article is based on secondary data
2. The study includes only top 3 Retail Companies listed in NSE
3. It only studies the profitability aspects

CONCLUSION

The researchers conclude the following based on the applied statistical tools and techniques,

1. There exists a significant effect of Covid-19 on the Net Profit of Future Retail Limited, Aditya Birla Fashion & Retail Limited and Avenue Super Mart Limited. Hence rejecting the null hypothesis no. 1.
2. There exists a significant effect of Covid-19 on the Operating Income of Future Retail Limited, Aditya Birla Fashion & Retail Limited and Avenue Super Mart Limited. Hence rejecting the null hypothesis no. 2.
3. There exists a significant effect of Covid-19 on the Return on Equity of Future Retail Limited, Aditya Birla Fashion & Retail Limited and Avenue Super Mart Limited. Hence rejecting the null hypothesis no. 3.
4. Net profit of the Avenue Super Mart Limited is highest followed by Aditya Birla Fashion & Retail Limited and Future Retail Limited.
5. Operating Income of the Avenue Super Mart Limited is highest followed by Aditya Birla Fashion & Retail Limited and Future Retail Limited.
6. Return on Equity of the Avenue Super Mart Limited is highest followed by Aditya Birla Fashion & Retail Limited and Future Retail Limited.

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FINANCIAL ANALYSIS OF MOTHERSON SUMI SYSTEMS LIMITED, ENDURANCE TECHNOLOGIES LIMITED AND VARROC ENGINEERING LIMITED WITH REFERENCE TO PRE AND POST BS VI NORM

CHETAN DEVASHISH BOSE AND DR. BABITA KANOJIA

ABSTRACT

Auto Component companies help in the smooth functioning of Automobile Industry. The research studies the impact of BS- VI Norm on financial ratios of leading Auto Component companies in Maharashtra. The current study is Quantitative in nature. It can be further classified as Causal- Comparative research. The study includes Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited based on their total revenue. The research concludes, there exist a significant difference in Earning Per Share and Return on Assets (%) of Motherson Sumi Systems Limited and Varroc Engineering Limited between pre and post BS- VI Norm. The comparative analysis of the selected companies indicates that the Earning Per Share and Return of Assets (%) of Endurance Technologies Limited is higher than Motherson Sumi Systems Limited and Varroc Engineering Limited. The study guides government officials, investors, market leaders, competitors and other stakeholders to adopt strategies which will help to maintain favourable financial ratios

Keywords: BS- VI Norm, Auto Component Companies and Financial Ratios

INTRODUCTION

Automobile Sector is largely depended on Auto Component companies for the smooth functioning of their various activities. Auto Component companies generate large numbers of employment opportunities. Bharat Stage VI Norm, which is introduced for reducing harmful pollutants, has brought challenges in front of Auto Component and Automobile Sector to maintain their financial ratios intact.

BS- VI Norm

Bharat Stage VI Norm is the emission standard which regulate the permission amount of pollutant that a vehicle can produce. India has taken a bold step of switching BS- IV Norm with BS- VI Norm. However, such step does have challenging effects on maintaining profit, revenue, sales and employment within the industry, who are directly or indirectly connected.

Auto Component Industry

The global pandemic was an unexpected threat to all the sectors of an economy. The Auto Component Industry which is considered as back bone for Automobile Industry has adversely affected by Covid-19. Moreover, implementation of BS- VI Norm has emerged as a milestone for Auto Component Industry. Balancing revenue and environment is a challenging for all Auto Component companies, however the effective management of Financial ratio can help to reduce the unfavourable imbalance.

REVIEW OF LITERATURE

The following review of various research paper and news articles were studied for conducting the research,

Original Equipment Manufacturers (OEM) have to adopt new technology for producing efficient fuel vehicles. This transition will help to reduce air pollution but it will need Automobile sector and oil companies to change their ways to make products. (Pothumsetty, Rohan & Thomas, Mary Rani, 2020)

The article points on the pressure of meeting deadline to attain BS- VI emission norm. The shift from BS- IV to BS- VI norm is historic, as it involves technological leap. The Automobile Industry, oil companies and Auto Component companies which are the backbone of Automobile Industry need to work together efficiently. (Parekh, Nishant & Gandhi, Shirish, 2019)

The article highlights that many manufacturers have unsold BS- 4 vehicles. They need to come up with strategies to build BS- VI vehicles and also to sell out BS- 4 vehicles to reduce their losses. (Abraham, 2019)

BS- VI emission norm will make the diesel vehicles more expensive as compare to petrol vehicles. The technology will not only increase the cost of the vehicles but only impact the sales, revenue and profit of the manufacturer. (Cyrus, Dhabhar, 2018)

RESEARCH GAP

The detailed analysis of literatures review has directed the researcher to undertake "Financial Analysis of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited with reference to Pre and Post BS- VI Norm"

OBJECTIVES OF THE STUDY

The Research Gap Helps to Frame the Following Listed Objectives in the Light of Literatures Review,

1. To analyse the effect of BS- VI Norm on the Earning Per Share of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited
2. To examine the impact of BS- VI Norm on the Net Profit Margin (%) of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited
3. To study the influence of BS- VI Norm on the Return on Assets (%) of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited

RESEARCH PROBLEMS OF THE STUDY

The problem framed to study "Financial Analysis of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited with reference to Pre and Post BS- VI Norm", is as follows

1. To study, examine and compare the effect of BS- VI on Financial ratios of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited.

HYPOTHESES OF THE STUDY

Review of various literatures, research gap, objects and problem have guided to frame the following hypotheses,

Hypothesis 1

H₀: There is no significant difference in Earning Per Share of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited between per and post BS- VI Norm

H₁: There is a significant difference in Earning Per Share of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited between per and post BS- VI Norm

Hypothesis 2

H₀: There is no significant difference in Net Profit Margin (%) of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited between per and post BS- VI Norm

H₁: There is a significant difference in Net Profit Margin (%) of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited between per and post BS- VI Norm

Hypothesis 3

H₀: There is no significant difference in Return on Assets (%) of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited between per and post BS- VI Norm

H₁: There is a significant difference in Return on Assets (%) of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited between per and post BS- VI Norm

RESEARCH METHODOLOGY OF THE STUDY

Type of Research

The current work can be characterised as Quantitative research. Financial data were collected from Trading A/C, Profit & Loss A/C, & Balance sheet. As the study is concern with BS- VI norm's effect on Earning Per Share, Net Profit, & Return on Asset of Motherson Sumi Systems Limited, Endurance Technologies Limited and Varroc Engineering Limited, the research can be further categorised as Causal-Comparative research.

Sources of Data Collection

Secondary sources were used to collect data for research work. Annual reports from NSE and BSE websites were used for getting authenticated data. News articles and research papers were also reviewed as secondary sources.

Sampling

The researcher has selected the leading Auto Component Companies of Maharashtra based on their total revenue generated. Hence, sampling method is not used.

SR. NO.	Auto Component Companies	TOTAL REVENUE. (₹ in Crore)
1	MOTHERSON SUMI SYSTEMS LTD.	6,800
2	ENDURANCE TECHNOLOGIES LTD.	4,900
3	VARROC ENGINEERING LTD.	2,100

REFERENCE PERIOD OF THE STUDY

The study includes 5 financial years for collecting and analysing data. 3 years of data is Pre BS- VI norm and the rest 2 years data is post implementation of BS- VI norm. The study compares the financial data on yearly basis.

TOOL AND TECHNIQUES OF DATA ANALYSIS

Application of excel sheet as a tool of data recording and collecting were used. However, the techniques to analysis includes line graph.

SIGNIFICANCE OF THE STUDY

Auto Component companies help Auto Industries to carry out their manufacturing activities smoothly. Auto Component companies generate employment opportunities and thus, play a vital role in the economic growth of any country. The study will guide all the Auto Component companies to follow the right financial practices to keep their business running in adverse situation created in the form of policy reforms or due to global pandemic. The study identifies the effect of BS- VI norm on the financial ratios of the top companies.

SCOPE OF THE STUDY

The Research Includes Following Scopes,

1. The research covers top three Auto Component companies based on its total revenue.
2. The study includes 5 years financial report, which consist of 3 years per BS- VI norm and 2 years post implementation of BS- VI norm.
3. It will help to identify the leading Auto Component company

LIMITATIONS OF THE STUDY

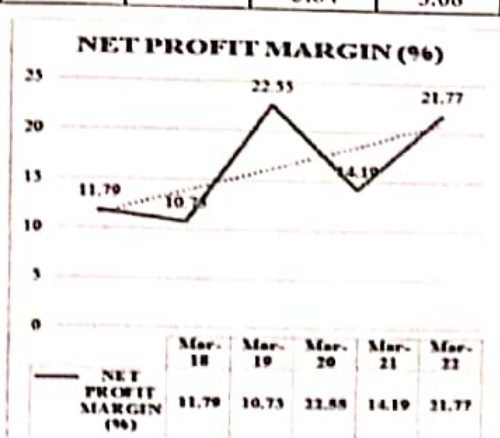
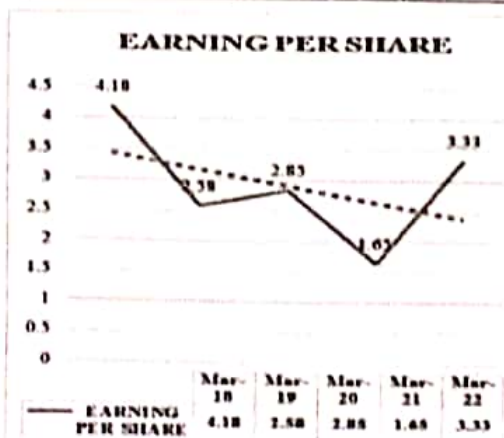
The Following Limitations are Drawn for the Study,

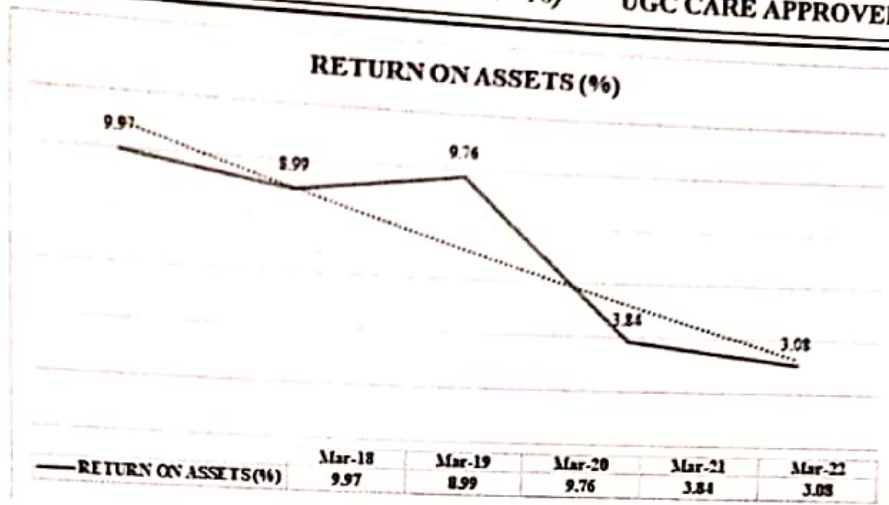
1. The study includes only top 3 Auto Component companies, which are based in Maharashtra
2. The data collected for research are mainly based on secondary sources
3. The research analysis only 3 aspects of financial ratio which are Earning Per Share, Net Profit and Return on Assets

DATA ANALYSIS AND INTERPRETATION

Motherson Sumi Systems Limited

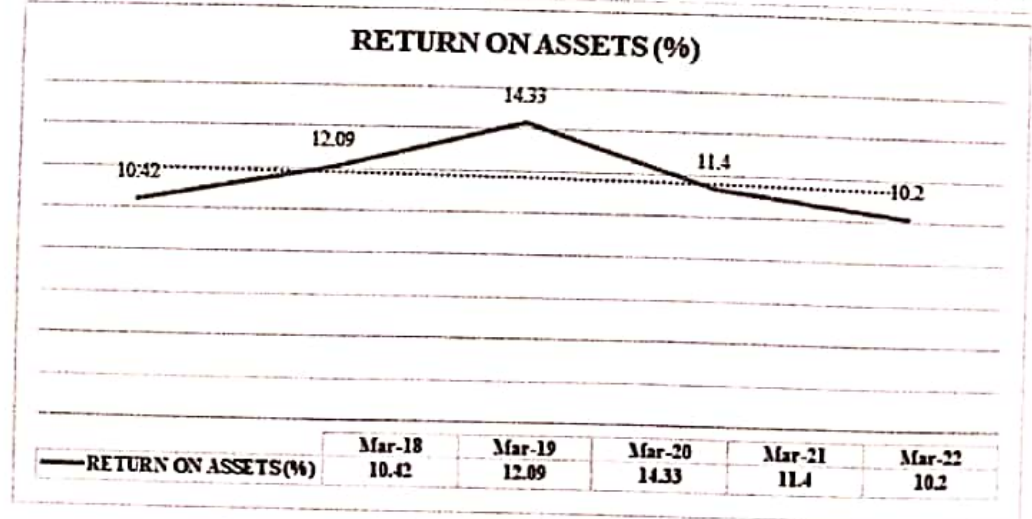
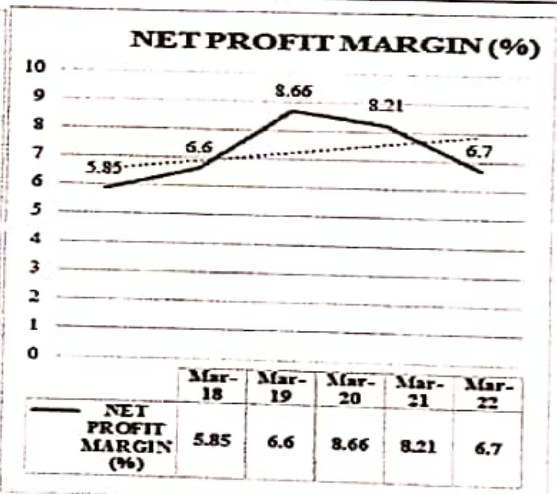
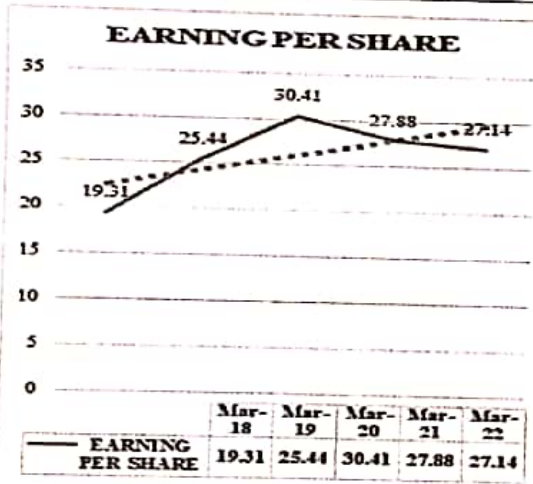
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22
EARNING PER SHARE	4.18	2.58	2.85	1.65	3.33
NET PROFIT MARGIN (%)	11.79	10.73	22.55	14.19	21.77
RETURN ON ASSETS (%)	9.97	8.99	9.76	3.84	3.08





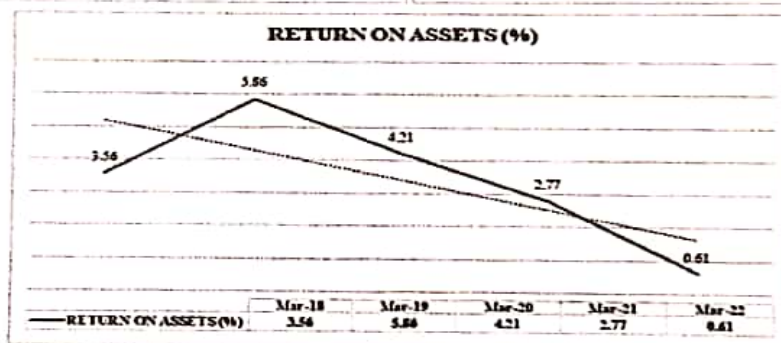
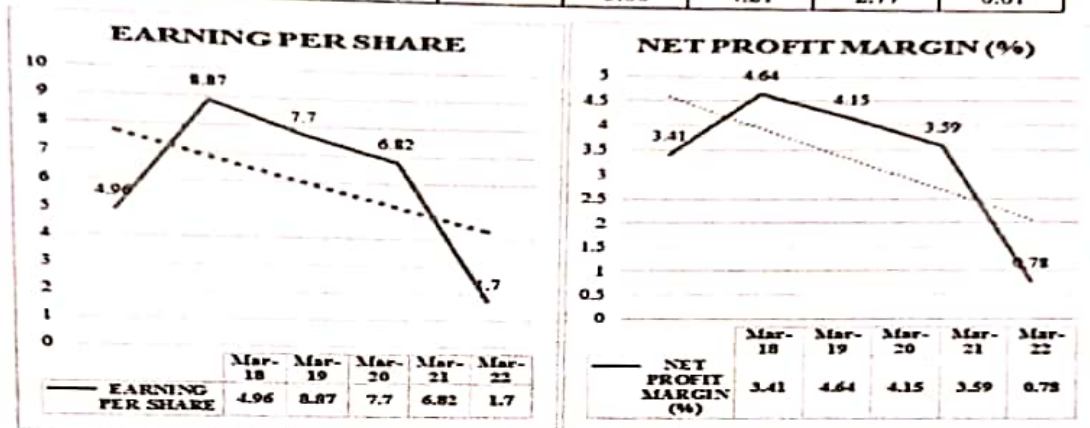
Endurance Technologies Limited

	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22
EARNING PER SHARE	19.31	25.44	30.41	27.88	27.14
NET PROFIT MARGIN (%)	5.85	6.6	8.66	8.21	6.7
RETURN ON ASSETS (%)	10.42	12.09	14.33	11.4	10.2

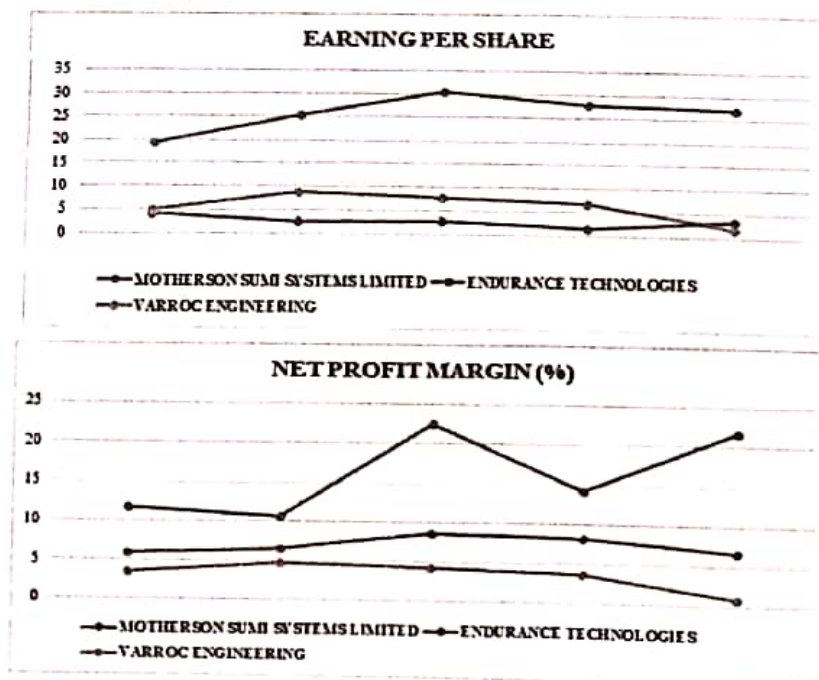


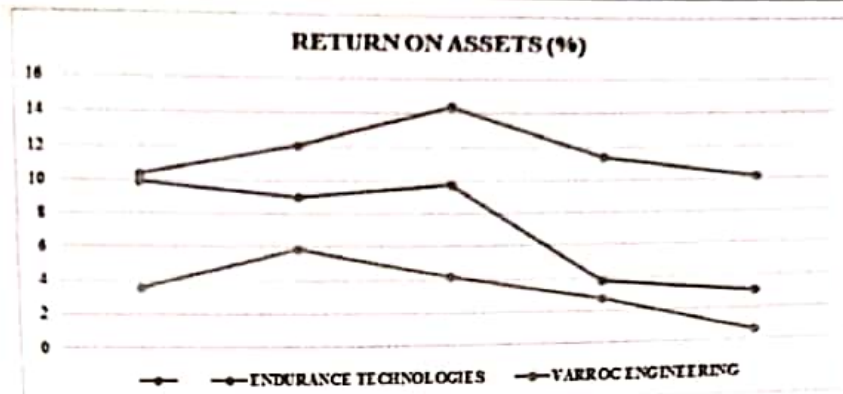
Varroc Engineering Limited

	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22
EARNING PER SHARE	4.96	8.87	7.7	6.82	1.7
NET PROFIT MARGIN (%)	3.41	4.64	4.15	3.59	0.78
RETURN ON ASSETS (%)	3.56	5.86	4.21	2.77	0.61



COMPARATIVE ANALYSIS





FINDINGS AND CONCLUSIONS

Based on the financial ratio of the studied companies following conclusions can be drawn,

1. There is a significant difference in Earning Per Share of Motherson Sumi Systems Limited, and Varroc Engineering Limited between per and post BS- VI Norm.
2. There is a significant difference in Net Profit Margin (%) of Varroc Engineering Limited between per and post BS- VI Norm.
3. There is a significant difference in Return on Assets (%) of Motherson Sumi Systems Limited and Varroc Engineering Limited between per and post BS- VI Norm.
4. The Earning Per Share of Endurance Technologies Limited is comparatively higher than Motherson Sumi Systems Limited and Varroc Engineering Limited
5. The Net Profit Margin (%) of Motherson Sumi Systems Limited is comparatively higher than Endurance Technologies Limited and Varroc Engineering Limited
6. The Return on Assets (%) of Endurance Technologies Limited is comparatively higher than Motherson Sumi Systems Limited and Varroc Engineering Limited

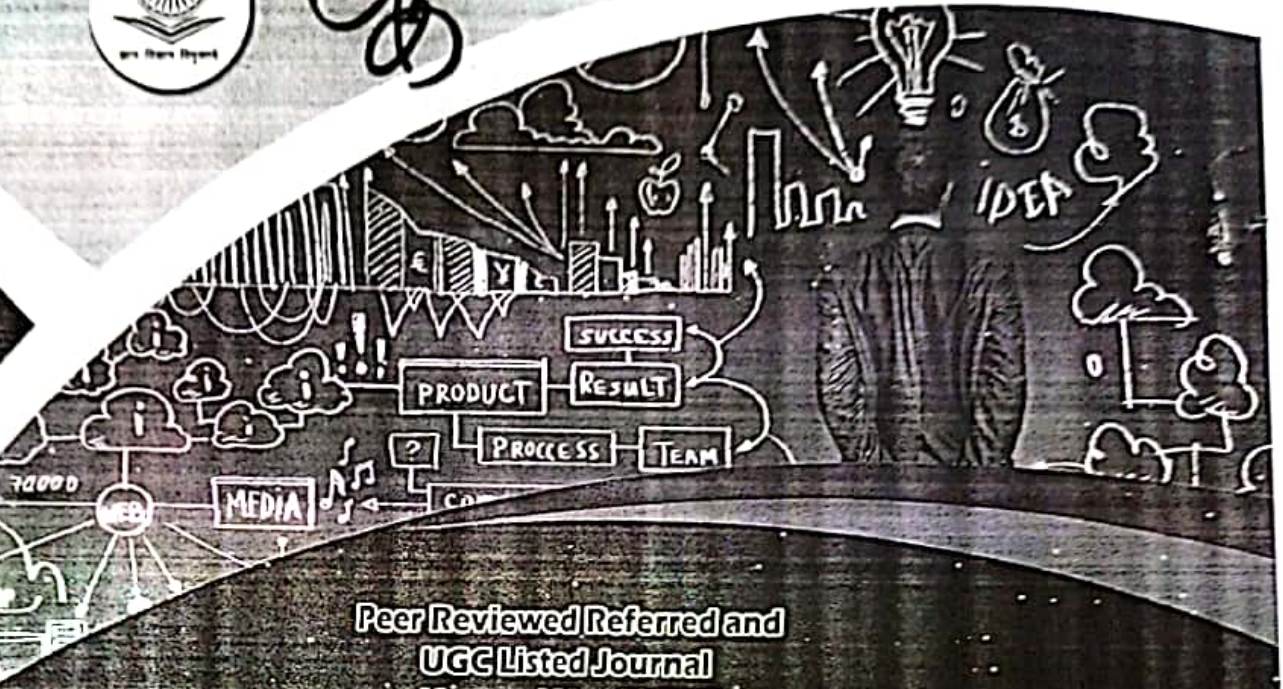
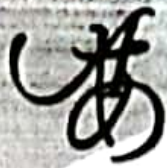
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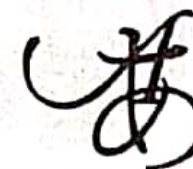
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2. A Comparative Analysis of Earnings and Labour Costs in Selected Food Industries Processing Companies

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Abstract

Food Processing Companies in India have a potential to grow and contribute significantly to Gross Domestic Product. The research undertakes a study of Profitability and Employees cost of select Food Processing Companies. The researcher has selected Nestle India Limited, Britannia Industries Limited, and Hatsun Agro Products Limited based on their Net Sales. The research can be classified as Quantitative. It includes secondary data. The financial information used for assessment is documented in accordance with the criteria established by the Securities and Exchange Board of India (SEBI). The research incorporates the use of the t-test procedure in order to arrive at its ultimate result. It has been shown that there is no statistically significant difference in terms of net sales, net profit, and Employees Cost of Nestle India Limited, Britannia Industries Limited, and Hatsun Agro Products Limited for pre Covid-19 and during Covid-19. The comparative analysis identifies that, Nestle India Limited has highest Net Sales, Net Profit and Employees cost followed by Britannia Industries Limited, and Hatsun Agro Products Limited. The research will guide young entrepreneurs, managers, and employees to identify the market leaders of Food Processing Companies listed in India's stock exchange. The article will guide economist and government official to make suitable policies for Food Processing Companies.

Key Words: Profitability, Food Processing Companies and Covid-19.

Introduction

Covid-19 is a universal problem which is not only live threatening but also curbing jobs of several people. Employability, stability and growth are pillars of a sound economy but they are difficult to achieve due to pandemic. The economy has to look into the potential sector and bring back the favourable climate for their country. People may not survive without employment in the long run. It will create instability in terms of Law and order, soon after the end of Global Lock down. So, the economists have to plan a sound policy for new normal situation.

Food Processing Companies

Indian Food Processing Companies have huge prospects to grow. It is 6th largest grocery market of the world. It is also ranked 5th in terms of Expected growth, export, consumptions and productions. The Indian Food Processing Companies can provide employment to many people, if it is channelized properly. It promotes agriculture and business associated with Food Industry. Adequate government intervention in the form of favourable polices for Food Processing Companies will help to unleash the potential of these companies.

Indian Food Processing Sector has received around US\$7.45 billion from April 2000 to March 2017 as Foreign Direct Investment, as per the IBEF report. It will also generate 9 million employments in the next 10 years. So, it's time to focus on the strength of our economy and create the platform for our local business leaders by focusing on what the global leaders do to remain at the top and compete the challenges successfully.

Review of Literature

The following research articles have been reviewed to get an insight about the problem understudy.

Economy & Food Processing Companies

Parthasarathy, Sriraman. (2008) has highlighted the potentials and challenges of Food Processing Sector. He emphasized on improving the infrastructure and quality for competing globally.

Shelly & Kaur, Kuldip. (2015) have pointed that, Indian Food Processing Companies have potential to grow and contribute in employment generation. It also helps in promoting agricultural production and combating rural- urban migration.

Hussian, Akil & Yadav Rahul. (2016) have analysed the importance of Food Processing Industries in production, consumption, export and GDP for Indian Economy. The Food

Processing Industries are benefited due to low-cost labour availability in India, which opens the scope of huge growth and employability

Profitability

Amirthalingam, Nishanthini & Balasundaram, Nimalathan. (2013) have noticed profitability helps to appreciate the financial capability of a firm. Profitability can act as a tool to make a distinction between same set of companies. They did state the significance of such studies for policy creation.

Covid-19

Roy, Shohini. (2020) has concluded that, Covid-19 had worldwide impact on the global economy. She has also indicated to various losses in several sector of the country due to pandemic.

Research Gap

The review of literatures guides us to reach the research gap, which lead us to undertake "A COMPARATIVE ANALYSIS OF EARNINGS AND LABOUR COSTS IN SELECTED FOOD INDUSTRIES PROCESSING COMPANIES"

Objectives of the Study

The study done has the following research aims.

1. To assess the impact of the Covid-19 pandemic on the net sales of certain food processing companies.
2. To analyse the effects of the Covid-19 pandemic on the net profit of certain food processing companies.
3. To examine the impact of the Covid-19 pandemic on the Employee Cost of certain Food Processing Companies, a comprehensive analysis will be conducted.
4. To identify the top Food Processing Companies in India based on the profitability parameter

Research Problems of the Study

The Research Problem formulated for "A COMPARATIVE ANALYSIS OF EARNINGS AND LABOUR COSTS IN SELECTED FOOD INDUSTRIES PROCESSING COMPANIES" is listed below,

1. The objective of this research is to comprehensively examine, investigate, and assess the effects of the Covid-19 pandemic on the profitability and employee costs of certain food processing companies in India.

Hypotheses of the Study

After going through the literatures review, gap, objectives and research problem, the researcher has formed following hypotheses,

Hypothesis 1

H0: There is no substantial disparity seen in the Net Sales of certain Food Processing Companies between pre-Covid-19 and the Covid-19 period.

Hypothesis 2

H0: There is no statistically significant disparity seen in the net profit of a specific group of food processing companies between the pre-Covid-19 period and the Covid-19 period.

Hypothesis 3

H0: The Employees Cost of Selected Food Processing Companies is Not Differentially Affected by Covid-19.

Research Methodology of the Study

Type of Research

The study involves financial data. Therefore, it is Quantitative in nature. It also tries to identify the relationship between Covid-19 and Profitability parameters. The research is further classified as ex post facto research.

Sources of Data Collection

The secondary data is collected from NSE or BSE website which is prepared as per SEBI guidelines.

Sampling

The research is based on a list of the three most valuable food processing companies available on the NSE or BSE websites. As a result, the study does not use a sample strategy.

SR. NO.	FOOD PROCESSING COMPANIES	NET SALES (₹ IN CRORE)
1	NESTLE INDIA LTD.	13,350.03
2	BRITANNIA INDUSTRIES LTD.	12,378.83
3	HATSUN AGRO PRODUCTS LTD.	5,569.74

Reference Period of the Study

The research includes financial data of 24 months. The first 12 months which are divided into 4 quarters are the data prior to Covid-19 and the next 12 months which is also divided into 4 quarters are the data for period during Covid-19. The pre Covid-19 period includes data from 1st April, 2019 to 31st March, 2020 and the during Covid-19 period include data from 1st April, 2020 to 31st March, 2021.

Tools and Techniques of Data Analysis

Excel 2007 has been used as a tool for converting data into line graphs and for analysing data through ANOVA test & t-test for drawing effective conclusions & suggestions.

Significance of the Study

The current study has a huge significant for young entrepreneurs, managers, and employees to identify the market leaders of Food Processing Companies listed in India's stock exchange. The article will guide economist and government official to make suitable policies for Food Processing Companies. The study will help us the identify the impact of Covid-19 on the Net Sales, Net Profit and Employees cost of Nestle India Limited, Britannia Industries Limited, and Hatsun Agro Products Limited. The article will indicate the best Food Processing Companies understudy. This information can be also utilized by Investor for selecting an appropriate Investment Portfolio.

Scope of the Study

The scope of the study can be explained with the below points,

1. Nestle India Ltd., Britannia Industries Ltd., and Hatsun Agro Products Ltd. are the only selected companies undertaken to represent the whole industry.
2. The research covers financial data of 24 months, which is divided into 8 quarters. The first 4 quarters represent pre Covid-19 and the next 4 quarters represent during Covid-19.
3. The learning includes information related to Employees Cost and Profitability.
4. The study will identify best Food Processing Companies based on its profitability parameters.

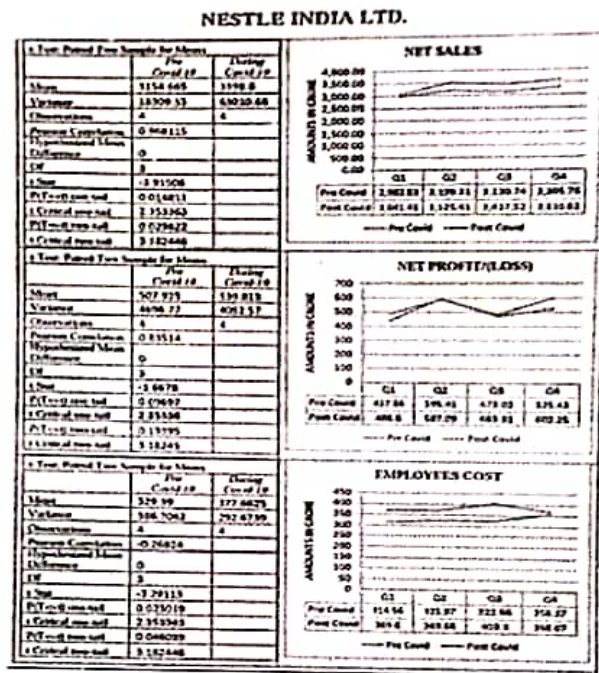
Limitations of the Study

The scope of research indicates the below listed limitations of the study undertaken,

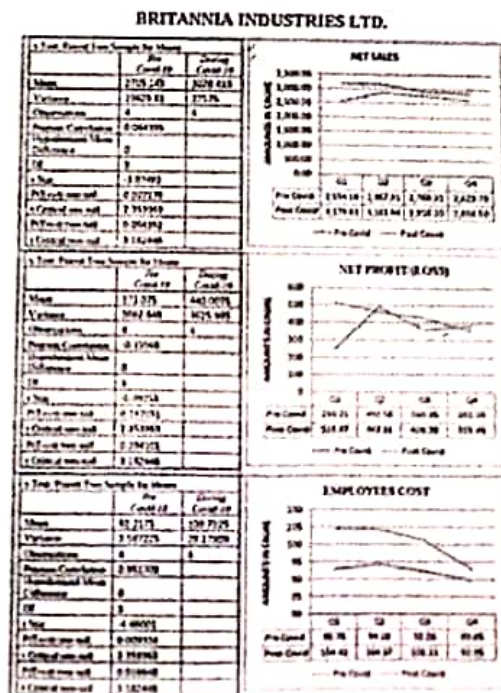
1. The study doesn't include primary data

2. The top three Food Processing Companies are representing the whole industry
3. Net Sales, Net Profit and Employees cost are the only three factors taken for study
4. Only NSE or BSE listed companies are taken into consideration

Data Analysis



Data Analysis



EMPLOYEES	400
COST	358.37 369.6 369.68 368.07
450	350
	314.56
	300
403.3	250
	200
	150
	100
	50
	0

	JUN '19	SEP '19	DEC '19	MAR '20	JUN '20	SEP '20	DEC '20	MAR '21	
Nestle India Ltd.		314.56	321.97	322.66	358.37	369.6	369.68	403.3	368.07
Britannia Industries Ltd.		92.78	94.18	92.26	89.65	104.42	104.37	101.11	92.95
Hatsun Agro Products Ltd.		41.55	41.79	41.21	43.16	46.43	48.62	46.77	46.56

Nestle India Ltd. Britannia Industries Ltd. Hatsun Agro Products Ltd.

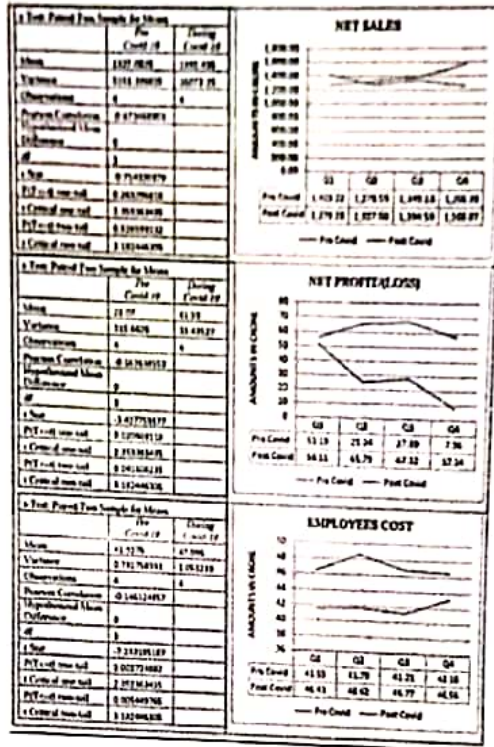
Findings and Conclusions

The below listed points indicate a concrete findings and conclusions, which are based on the t-test,

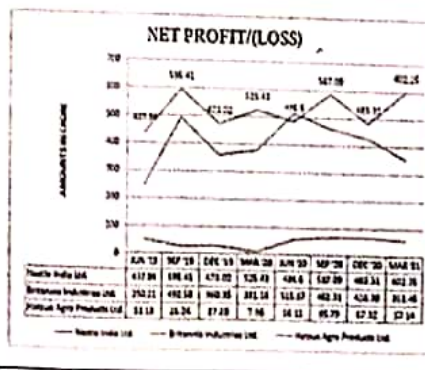
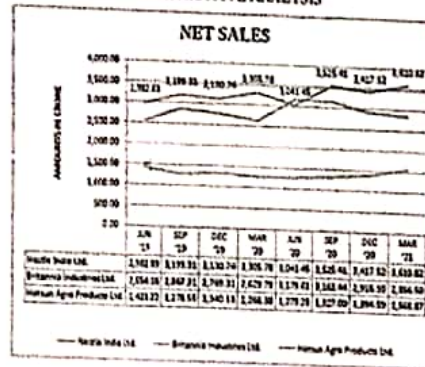
1. The t-stat value is less than t-critical value, hence there is no sufficient evidence to reject first null hypothesis. Therefore, the Net Sales of Nestle India Ltd., Britannia Industries Ltd., and Hatsun Agro Products Ltd have not been significantly affected by Covid-19.
2. The t-stat value is less than t-critical value, hence there is no sufficient evidence to reject second null hypothesis. Therefore, there exists no significant effect of Covid-19 on the Net Profit of Nestle India Ltd., Britannia Industries Ltd., and Hatsun Agro Products Ltd.
3. The t-stat value is less than t-critical value, hence there is no sufficient evidence to reject third null hypothesis. Therefore, there exists no significant difference in the

Data Analysis

HATSUN AGRO PRODUCTS LTD.



COMPARATIVE ANALYSIS



- Employees Cost of Nestle India Ltd., Britannia Industries Ltd., and Hatsun Agro Products Ltd for pre and during Covid-19.
4. Net Sales of Nestle India Ltd is at peak among the select Food Processing Companies, followed by Britannia Industries Ltd., and Hatsun Agro Products Ltd.
 5. Net Profit of Nestle India Ltd is highest among the select Food Processing Companies, followed by Britannia Industries Ltd., and Hatsun Agro Products Ltd.
 6. Employees cost of Nestle India Ltd is outmost among the select Food Processing Companies, followed by Britannia Industries Ltd., and Hatsun Agro Products Ltd.

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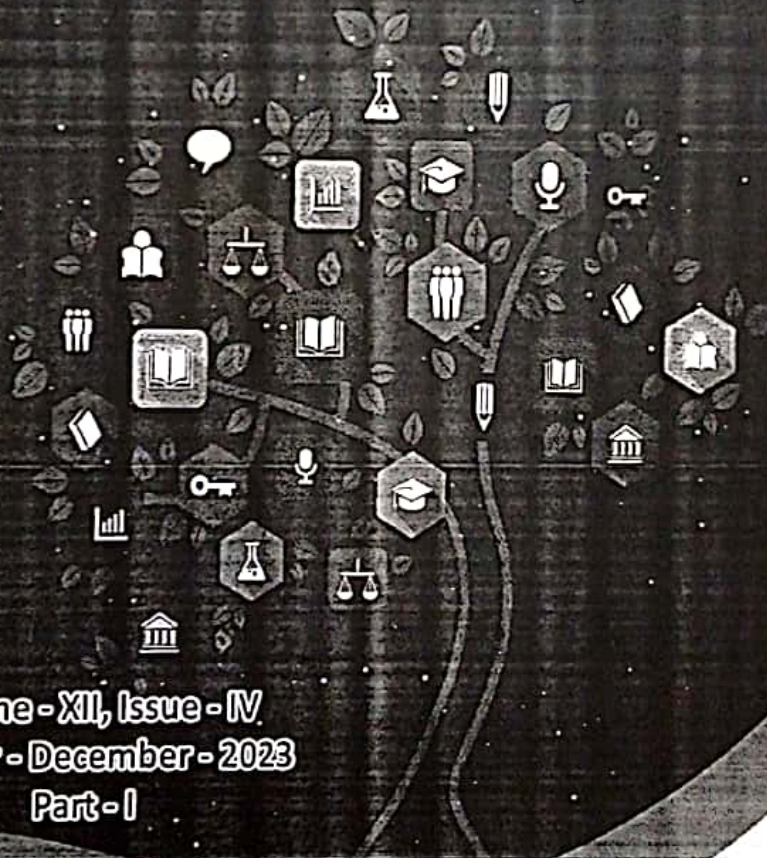


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5. Financial Analysis of ICICI, HDFC and AXIS in Connection with Pre and Post Covid- 19

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Abstract

Banks under private sector contribute significantly to the growth of an economic system. The research reveals how the profitability of select Private Sector Banks are affected by Covid-19 pandemic. The present research is Quantitative in nature. It is further categorised as Causal-Comparative research. The research article includes the most prominent privately held banks for the study according to their total asset valuation. The select privately held banks include ICICI, HDFC and Axis. The information gathered are secondary in nature, however for data analysis, financial records as prescribed by SEBI are used. The study comprises t-Test and ANOVA test for finishing all its verdicts. The article concludes that, there exist no significant difference on the income earned through interest, Return on Assets and Net Profit of ICICI, HDFC and Axis between pre and during Covid-19. It further concludes that, there exist no substantial variance on the Net Non-productive Assets of HDFC Banks between pre and during Covid-19. However, there exist a significant difference on the Net Non productive Assets of Axis and ICICI between pre and during Covid-19. Finally, HDFC Bank performed well as compare to Axis and ICICI with reference to Interest Income and Net Profit. However, according to Return on Asset, ICICI Bank performed very well as compared to HDFC Bank and Axis Bank. The article provides insight to government officials, bankers, investors and other stakeholder to adopt appropriate strategies during pandemic situation for maintaining profitability of Privately held banks.

Key Words: Privately held banks, Covid-19 & Profitability.

Introduction

The year 2020 has shocked the world with an unexpected treat. The pandemic called Covid19 has primarily effected the life of every human being. At present, balancing life and

economy has become a major challenge of the globe. In every economy banks place a vital role to maintain a stable growth. The health of a country is mostly based on the wealth of a banking sector.

Private Sector Banks

Banking sector is subdivided into Publicly owned banks and Privately owned banks. Publicly owned banks have supports from Central, Union or State Government for its smooth functioning where as Private Sector Banks depends on its performance to sustain its growth.

During the pandemic each and every sectors had to face challenge to retain its profitability.

Covid-19

Every country has its own policy to overcome from challenges, but the pandemic has assured that it will keep its scars on the economy for a long term. Banks which is an indicator a growth for every country. It has a major role to play. Public Sector Banks along with Private Sector Banks should engage in activities which will try to bring the economy and its profitability on track.

Profitability

Banks profitability is an indicator of positive healthy of a bank. Profitability of a bank can be measured by Return on Owners Fund, Return on Assets, Net Profit or Loss, Operating Expenses, Operating Income, Earning Per Share, Earning Before Interest and Tax, etc. Banks need to perform well as there are many stakeholders who are dependent on Banks for their growth and survival.

Review of Literature

The following papers have been checked for the issue under investigation. Researchers have attempted to cover all of the important aspects of this study.

Covid-19

Ghosh, A., Nundy, S., & Mallick, T. (2020) have studied in their article that Covid-19 has negative impact for the Economy and Human life. However social distancing and lockdown rules have to be followed in order to bring the human life and economy on the track.

Janus, J. (2021) has pointed in his study that Covid-19 has given a tremendous shock to the economy and it is the responsible for low Gross Domestic Product dynamics

Private Sector Banks

Anjum, B., & Tiwari, R. (2012) have tried to explore the role of privately owned banks in economy development with the help of financial inclusion. They have concluded that, information technology and communication technology enhance the scope of financial inclusion for economic development.

Kalpana, B., & RaoTaidala. (2017) together acknowledged that banks play an important role in developing Industries and trade. Banks act as a guardian of wealth and resource which are essential for economic growth.

Profitability

V, B. (2013) has pointed a significant fact that profitability of a bank indicates its operational efficiency and effectiveness. Profitability indicators like return on net worth, profit margin, return on long term funds, return on asset and interest spread were measured in her study.

Garg, P., & Kumari, S. (2015) have done an empirical study on profitability of private banks and stated that financial success of any bank majorly depends on its profitability.

Research Gap

The thorough analysis of literatures review has guided the researcher to undertake "Financial Analysis of ICICI, HDFC and AXIS in connection with Pre and Post Covid-19"

Objectives of the Study

The research gap helps to frame the following listed objectives in the light of literatures review

- To analyse the effect of Covid on the Interest Income of select Privately owned banks
- To study the influence of Covid-19 on the Return on Asset in percentage of select Privately owned banks
- To analyse the impact of Covid-19 on the Net Non-Performing Asset in percentage of select Private Sector Banks

Research Problems of the Study

The problem framed to study "Financial Analysis of ICICI, HDFC and AXIS in connection with Pre and Post Covid-19", is as follows

1. To study, analyse and compare the effect of Covid on Cost-effectiveness of the select Privately owned banks

Hypotheses of the Study

The researchers have framed hypotheses on the basis of literatures review, research gap, research objectives and research problem in order to proceed with the data collection and analysis,

Hypothesis 1

- H0: There is no substantial variance in Interest Income of select Privately owned banks between per and during Covid-19
- H1: There is a substantial variance in Interest Income of select Privately owned banks between per and during Covid-19

Hypothesis 2

- H0: There is no substantial variance in Net Profit of select Privately owned banks between per and during Covid-19
- H1: There is a substantial variance in Net Profit of select Privately owned banks between per and during Covid-19

Hypothesis 3

- H0: There is no substantial variance in the Return on Assets of select Privately owned banks between per and during Covid-19
- H1: There is a substantial variance in the Return on Assets of select Privately owned banks between per and during Covid-19

Hypothesis 4

- H0: There is no substantial variance in the Net Non-Performing Asset of select Privately owned banks between per and during Covid-19
- H1: There is a substantial variance in the Net Non-Performing Asset of select Privately owned banks between per and during Covid-19

Research Methodology of the Study

Type of Research

The present research is Quantitative in nature. It requires collection of data related to Income and Balance sheet. As researcher analyse the effect of Covid-19 on Net Profit, Interest Income, Net Non Performing Asset and Return on Asset of select Privately owned banks, the research can be simplified as Causal-Comparative research.

Bases of Data Collection

The research is purely built on Secondary source. The researchers have taken financial records from websites like NSE and BSE for collecting financial information as prescribed by SEBI. The secondary source also includes news and research articles for the problem under study.

Sampling

The study includes top three Indian Private Sector Banks listed at stock exchange based on total asset valuation, as on 31th December 2020. Therefore, no sampling method is used.

Sr. No.	Private Sector Banks	Total Assets (Amount In Crore)
1	HDFC	15,30,511
2	ICICI	10,98,365
3	AXIS	9,15,164

Time Frame of the Study

The research includes a total period of 18 months for collecting and analysing data. 9 months of data is pre Covid-19 and the rest 9 months data is during Covid-19. The article collects and analyses 6 quarter, which consist of 3months for each quarter.

Tool and Techniques of Data Analysis

The tool used for data analysis includes Excel Sheet. However, the techniques of data analysis consist of two paired t- test and one paired ANOVA test. The above tool and techniques were selected for effectively concluding the findings.

Significance of the Study

Privately owned banks play an vital role for effectively running of an economic system. Entrepreneurs, Supplier, Investor and other stake holders are associated with private banks for various financial operations. The success of Private Sector Banks will have a positive impact to various sectors of the economy. It would act as source for Investors to invest in profitable banks. The study has made an effort to understand the result of Covid-19 on the cost-effectiveness and nonperforming assets of the top three private sector banks. It will ultimately reveal the leader of Privately owned banks.

Scope of the Study

The various space of the research has been listed below

- The study covers top three Private Sector Banks based on its total asset valuation. □
- The study includes 6 quarterly ended financial report, which consist of 3 quarterly reports for per Covid-19 and 3 quarterly reports during Covid-19
- It will provide ranks to select Private sector Banks based on its profitability

Limitations of the Research

The limitations are draw grounded on the purposes, data collections and scope of the study are as follows

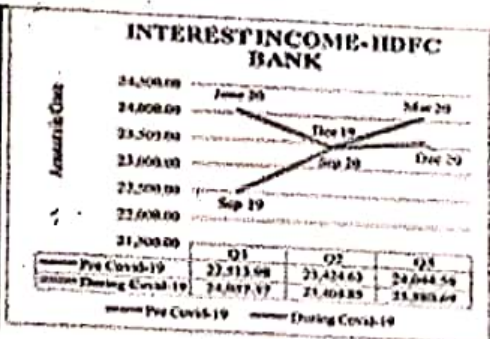
- The study is based existing data which are secondary in nature
- It includes top three Private Sector Banks based on its total asset valuation
- The study covers only non-performing assets and profitability of the select Privately owned banks

DATA ANALYSIS

HOUSING DEVELOPMENT FINANCE CORPORATION- HDFC BANK

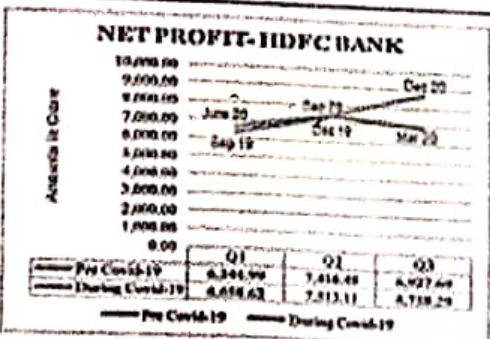
t-Test: Paired Two Samples for Means		
	Pre Covid-19	During Covid-19
Mean	23327.73	23674.3
Variance	892726.3	106593
Observations	3	3
Pearson Correlation		0.77113
Hypothesized Mean Difference	0	
df	2	
t Stat		-0.5733
P(T<=t) one-tail		0.311537
t Critical one-tail		2.919986
P(T<=t) two-tail		0.623073
t Critical two-tail		4.302653

t stat < t critical
H0 is not rejected

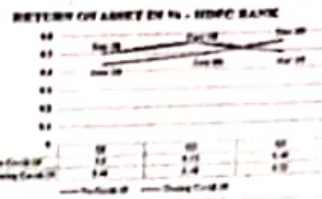


t-Test: Paired Two Samples for Means		
	Pre Covid-19	During Covid-19
Mean	6896.387	7653.34
Variance	287757.6	1114873
Observations	3	3
Pearson Correlation		0.450133
Hypothesized Mean Difference	0	
df	2	
t Stat		-1.36947
P(T<=t) one-tail		0.152174
t Critical one-tail		2.919986
P(T<=t) two-tail		0.304349
t Critical two-tail		4.302653

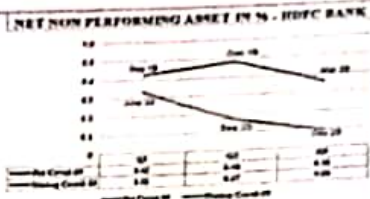
t stat < t critical
H0 is not rejected



Particulars	Pre Covid-19	During Covid-19
Assets	8114557	82011031
Liabilities	82011031	82011031
Provisions	3	3
Capitalization	0.00000	0.00000
Hypothecated Assets Difference	0	0
Net	0.00000	0.00000
Pre Covid-19	0.00000	0.00000
During Covid-19	0.00000	0.00000
Pre Covid-19	0.00000	0.00000
During Covid-19	0.00000	0.00000

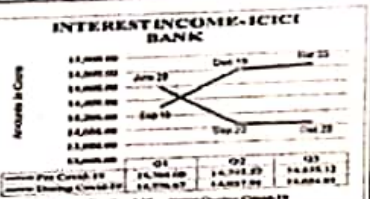


Particulars	Pre Covid-19	During Covid-19
Assets	0.41	0.190000
Liabilities	0.00000	0.00000
Provisions	3	3
Capitalization	0.00000	0.00000
Hypothecated Assets Difference	0	0
Net	0.41	0.190000
Pre Covid-19	0.41	0.190000
During Covid-19	0.41	0.190000
Pre Covid-19	0.41	0.190000
During Covid-19	0.41	0.190000

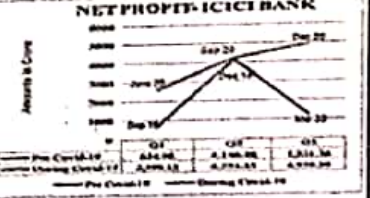


INDUSTRIAL CREDIT AND INVESTMENT CORPORATION OF INDIA - ICICI BANK

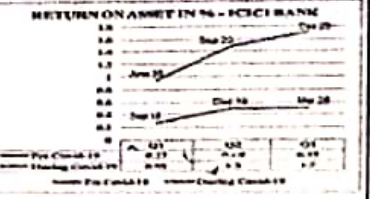
Particulars	Pre Covid-19	During Covid-19
Assets	14044.9	14215.00
Liabilities	8784.95	87314.83
Provisions	3	3
Capitalization	0.00000	0.00000
Hypothecated Assets Difference	0	0
Net	1321.16	5470.17
Pre Covid-19	1321.16	5470.17
During Covid-19	1321.16	5470.17
Pre Covid-19	1321.16	5470.17
During Covid-19	1321.16	5470.17



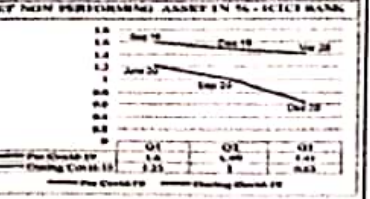
Particulars	Pre Covid-19	During Covid-19
Assets	2097.9933	2030.0233
Liabilities	3112.042	3466.12
Provisions	3	3
Capitalization	0.00000	0.00000
Hypothecated Assets Difference	0	0
Net	-1014.0487	-1436.0967
Pre Covid-19	-1014.0487	-1436.0967
During Covid-19	-1014.0487	-1436.0967
Pre Covid-19	-1014.0487	-1436.0967
During Covid-19	-1014.0487	-1436.0967

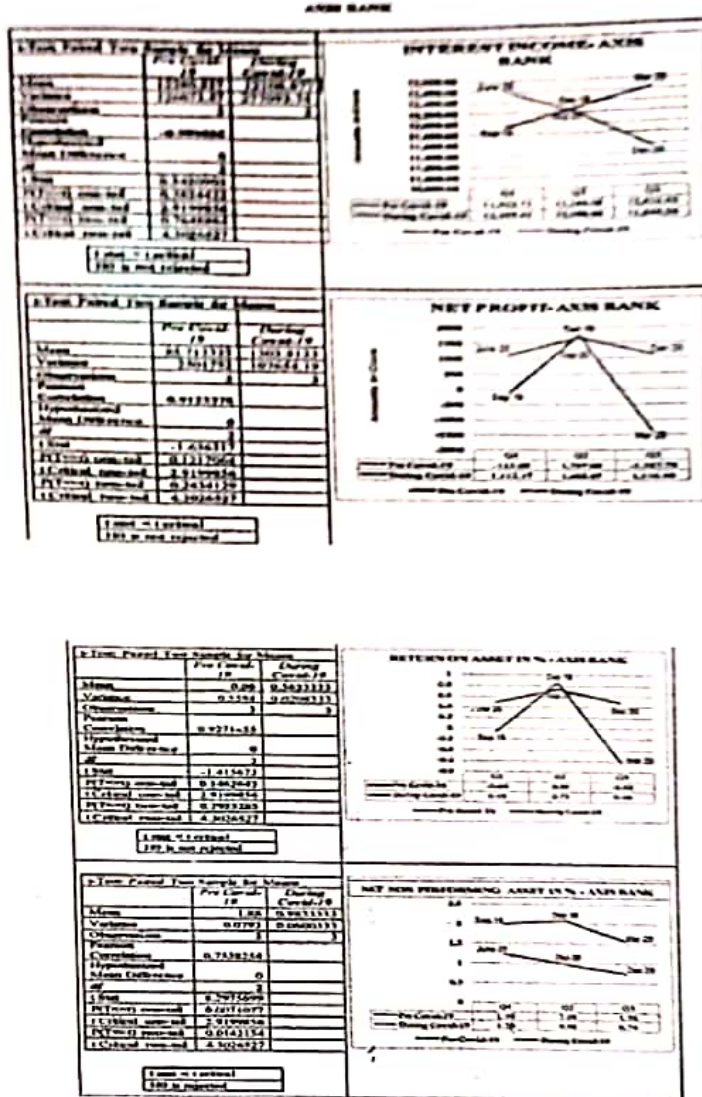


Particulars	Pre Covid-19	During Covid-19
Assets	0.0161333	0.1408333
Liabilities	0.00000	0.00000
Provisions	3	3
Capitalization	0.00000	0.00000
Hypothecated Assets Difference	0	0
Net	0.0161333	0.1408333
Pre Covid-19	0.0161333	0.1408333
During Covid-19	0.0161333	0.1408333
Pre Covid-19	0.0161333	0.1408333
During Covid-19	0.0161333	0.1408333



Particulars	Pre Covid-19	During Covid-19
Assets	1.2	0.933333
Liabilities	0.00000	0.00000
Provisions	3	3
Capitalization	0.00000	0.00000
Hypothecated Assets Difference	0	0
Net	1.2	0.933333
Pre Covid-19	1.2	0.933333
During Covid-19	1.2	0.933333
Pre Covid-19	1.2	0.933333
During Covid-19	1.2	0.933333





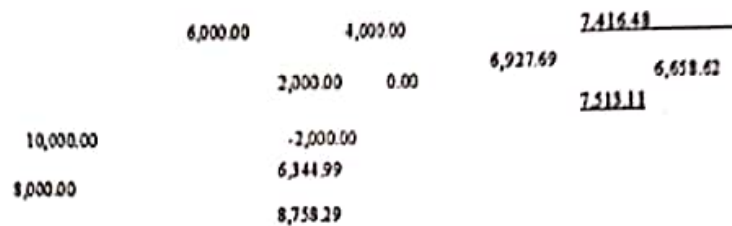
Comparative Analysis of Interest Income

30,000.00	
25,000.00	20,000.00
15,000.00	10,000.00
5,000.00	0.00
22,513.98	23,121.63
24,044.58	24,037.37
<u>23,401.85</u>	<u>23,580.69</u>

	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
HDFC BANK	22,513.98	23,424.63	24,044.58	24,037.37	23,404.85	23,580.69
ICICI BANK	14,304.00	14,795.57	14,835.12	14,576.67	14,037.91	14,034.81
AXIS BANK	11,923.71	12,284.08	12,633.82	12,587.41	12,188.96	11,544.26

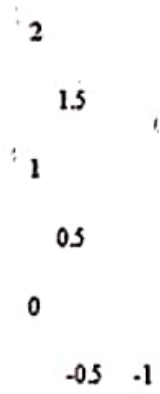
HDFC Bank ICICI Bank Axis Bank

Comparative Analysis of Net Profit



	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
HDFC BANK	6,344.99	7,416.48	6,927.69	6,658.62	7,513.11	8,758.29
ICICI BANK	654.96	4,146.46	1,221.36	2,599.15	4,251.33	4,939.59
AXIS BANK	-112.08	1,757.00	-1,387.78	1,112.17	1,682.67	1,116.60

HDFC Bank ICICI Bank Axis Bank



Comparative Analysis of Return on Asset in %

	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
HDFC BANK	0.5	0.55	0.49	0.44	0.48	0.55
ICICI BANK	0.27	0.49	0.49	0.95	1.5	1.7
AXIS BANK	0.06	0.86	0.62	0.48	0.73	0.48

Hdfc Bank ICICI Bank AXIS Bank

1.7
1.5
0.95
0.49
0.27 0.49

Comparative Analysis of Non-Performing Asset in %

2.09 1.23
1.99 0.98
 0.74

HDFC Bank ICICI Bank AXIS Bank

2.5 2 1.56
1.5 1
0.5 0

Comparative Analysis of Non-Performing Asset in %

2.09 1.23
1.99 0.98
 0.74

	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20
HDFC BANK	0.42	0.48	0.36	0.33	0.17	0.09
ICICI BANK	1.6	1.49	1.41	1.23	1	0.63
AXIS BANK	1.99	2.09	1.56	1.23	0.98	0.74

HDFC Bank ICICI Bank AXIS Bank

Findings and Conclusions

By using relevant methods and instruments, the researchers have reached the following conclusions

- There exists no significant difference on the Interest Income of HDFC Bank, ICICI Bank and Axis Bank due to Covid-19. Thus, the initial null hypothesis can be believed.

- There exists no significant impact of Covid-19 on the Net Profit of HDFC Bank, ICICI Bank and Axis Bank. Hence, the second The null hypothesis has been approved.
- There exists no significant effect of Covid-19 on the Return on Assets of HDFC Bank, ICICI Bank and Axis Bank. Hence, the third null hypothesis is not rejected.
- There exists no significant difference on the Net Non-Performing Asset of HDFC Bank due to Covid-19. However there exist a significant impact on Net Non-Performing Asset of ICICI Bank and Axis Bank due to Covid-19.
- Interest Income of HDFC Bank is highest followed by ICICI Bank and Axis Bank. However there exist a significant relation among the Interest Income of the select Private Sector Banks.
- Net Profit of HDFC Bank is highest followed by ICICI Bank and Axis Bank. However there exist a significant relation among the Net Profit of the select Private Sector Banks
- Return on Assets (%) of ICICI Bank is highest followed by HDFC Bank and Axis Bank. However there exist no significant relation among the return on assets (%) of the select Private Sector Banks
- Net Non-Performing Assets (%) of HDFC Banks is lowest followed by ICICI Bank and Axis Bank. However there exist a significant relation among the Net Non-Performing Assets (%) of the select Private Sector Banks.

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3. The Detrimental Effect of Emission Norms on Earnings and Returns of Specific Auto Part Companies

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Abstract

The Indian Auto manufacturing industry relies on auto component firms for its growth and operation. The study examined how the emission norm i.e., Bharat Stage- VI norm affects the earning and returns of a group of auto component companies, concentrating on EPS, return on assets and net profit margin. The analysis relies on audited balance sheets and income statements from 2017-2018 through 2021-2022. The research is quantitative and descriptive in nature. This study includes ratio analysis of Gabriel India Ltd, Shriram Piston & Ring Ltd and Sandhar Technologies Ltd.

EPS, return on assets, and net profit margin for Gabriel India Ltd, Shriram Piston & Ring Ltd and Sandhar Technologies Ltd exhibit downward trends. Sandhar Technologies Ltd exhibits substantially greater EPS, return on assets (%) and net profit margin (%) in comparison to Gabriel India Ltd and Sandhar Technologies Ltd. This study may help auto component firms build sound financial plans to meet Bharat Stage VI requirements

Key Words: Bharat Stage- VI Norm, Auto Component Companies and Profitability Ratio.

Introduction

The automotive sector in India exhibits significant potential for growth and expansion. The organisation collaborates with the automotive component industry to enhance operational efficiency. A significant number of individuals have direct or indirect affiliations with these corporations. The maintenance of socio-economic equilibrium within an economy is achieved through the generation of employment opportunities. Nevertheless, the interference of

government through diverse regulations or the occurrence of natural disruptions such as the COVID-19 pandemic sometimes disrupts the operational dynamics of corporations.

Bharat Stage- VI Norm

The Bharat Stage-VI Norm is a guideline for emission standard implemented with the objective of improving air quality by utilising advanced engines, hence mitigating air pollution. In the past, the emission norm in India was the BS-IV norm. The transition from BS 4 Norm to BS 6 necessitates the collaborative involvement of all stakeholder groups.

Auto Component Industry

The Auto part companies help the automotive industry. The automotive component industry faces many challenges due to a changing business climate. The company must adapt, recontextualize, and arrange its activities to meet automotive industry standards. The BS-VI emission standard has forced the car industry to change its production methods to meet strict environmental standards. Thus, the automobile component industry must use this technology to survive.

Profitability

Profitability is a company's ability to make more than it spends. It is usually measured using gross profit margin, net profit margin, EBITDA, and other indicators. The above ratios help analysts, shareholders & stakeholders evaluate the company's ability to generate revenue enough to offset operational expenses, add assets to its balance sheet, and undertake profitable projects

Literature Review

- The present research incorporates an extensive literature analysis including the following sources.
- Borgave, Sachin & Chaudhari, J. S., (2010) The study describes the automotive component industry's challenges despite its growth potential. Government policies and technical advances are the main impediments. This statement emphasises the necessity to understand the BS-VI rule, which is projected to affect the Indian automotive component industry financially.
- Ghosh (2018) The analysis shows that the BS-VI legislation will raise car prices, especially diesel-powered vehicles and motorbikes. This shows how the norm affects industry sales, income, profitability, and sustainability.

- Banerjee, Jasodhara (2020) The study recognises the need to improve air quality through the BS-VI standard and discusses its potential effects on the Indian automotive industry. The quick deployment of BS-VI regulation hurts car efficiency, according to the study.
- Dhabhar, Cyrus (2019) The website details how large companies like Mahindra are upgrading plants to meet the BS-VI standard. The proposed improvement will need significant financial investments and revisions to current financial and operational ratios to meet BS-VI requirements.
- Hossain (2020) A modest body of research has explored the factors that affect the profitability of Bangladeshi manufacturing companies listed on the Dhaka Stock Exchange. The empirical evidence reveals that liquidity, borrowing activities, management efficiency, sales growth, and the cost of capital significantly affect manufacturing enterprises' financial success.
- Nguyen & Nguyen (2020) This study examined the financial performance of 1343 publicly listed Vietnamese companies in six categories. Profitability depends on firm size, finances, stability, borrowing capacity, and sufficiency. In financial analysis, profitability is assessed using three ratios: ROS, ROE, and ROA.

Research Gap

The comprehensive examination of the reviewed literature has guided the researcher to go into, "The Detrimental Effect of Emission Norms on Earnings and Returns of Specific Auto Part Companies"

Objectives

The literature evaluation, the research gap frames the following objectives

1. To study the effect of BS 6 rule on the EPS of Gabriel India Ltd, Shriram Piston & Ring Ltd, and Sandhar Technologies Ltd.
2. The objective is to examine how the BS-VI rule affects the net profit margin (%) of Gabriel India Ltd, Shriram Piston & Ring Ltd, and Sandhar Technologies Ltd
3. Assess the impact of BS-VI rule on return on assets (%) for Gabriel India Ltd, Shriram Piston & Ring Ltd, and Sandhar Technologies Ltd.

Research Problems

The problem framed to study "The Detrimental Effect of Emission Norms on Earnings and Returns of Specific Auto Part Companies", is as follows:

1. The study aims to conduct a comparative analysis and evaluation of the impact of BS-VI regulations on the profitability of three companies, namely Gabriel India Ltd, Shriram Piston & Ring Ltd, and Sandhar Technologies Ltd

Hypotheses Formulation

The present research formulates the following hypotheses, which are derived from a comprehensive examination of the existing literature and the study's aims

- H01: There is no difference in EPS of Sandhar Technologies Ltd, Shriram Piston & Ring Ltd and Gabriel India Ltd between the pre & post BS 6 norms.
- H02: There is no difference in net profit margin (%) of Sandhar Technologies Ltd, Shriram Piston & Ring Ltd and Gabriel India Ltd between the pre & post BS 6 norms.
- H03: There is no difference in return on assets (%) of Sandhar Technologies Ltd, Shriram Piston & Ring Ltd and Gabriel India Ltd between the pre & post BS 6 norms

Research Methodology

Research Type

The research may be categorised as quantitative in nature, since it pertains to numerical data about EPS, net profit margin, and return on assets. The study encompasses an examination of elements pertaining to the income statement and the statement of financial position.

Data Sources

The annual reports of Gabriel India Ltd, Shriram Piston & Ring Ltd, and Sandhar Technologies Ltd were obtained from the official websites of the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE). Data has a secondary characteristic.

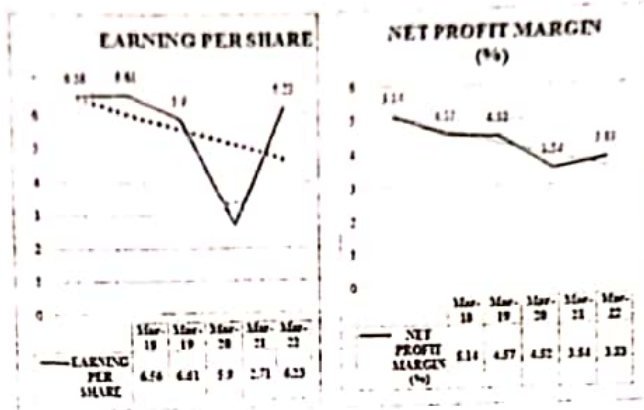
Sampling

The study encompasses three automotive component businesses. The pilot research used a convenient sampling method.

SR.NO.	Auto Component Companies	TOTAL REVENUE (in crore)
1	GABRIEL INDIA LTD	1,870
2	SANDHAR TECHNOLOGIES LTD	1,640
3	SHIRIRAM PISTON & RING LTD	1,607

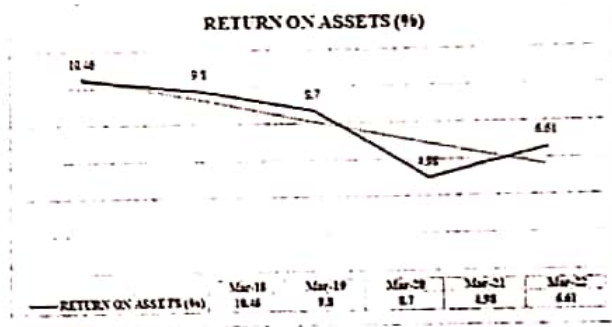
Analysis and Interpretation

Gabriel India Ltd



EPS showing Downward Trend

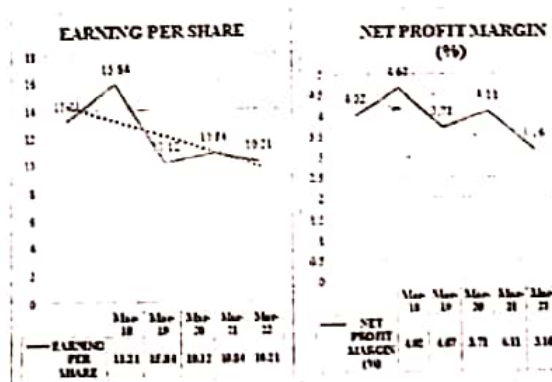
Net Profit Margin Showing Downward Trend



Return on Assets showing downward Trend

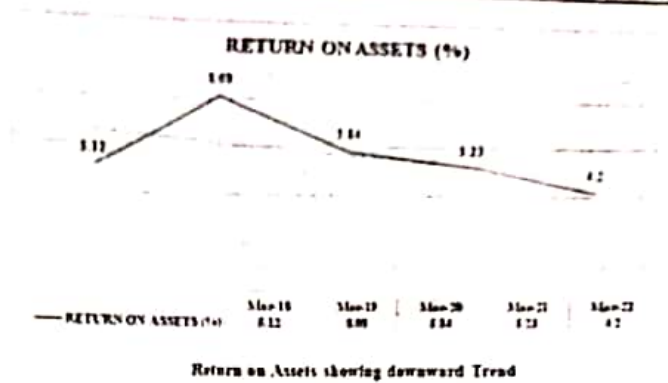
Return on Assets showing downward Trend

Sandhar Technologies Ltd



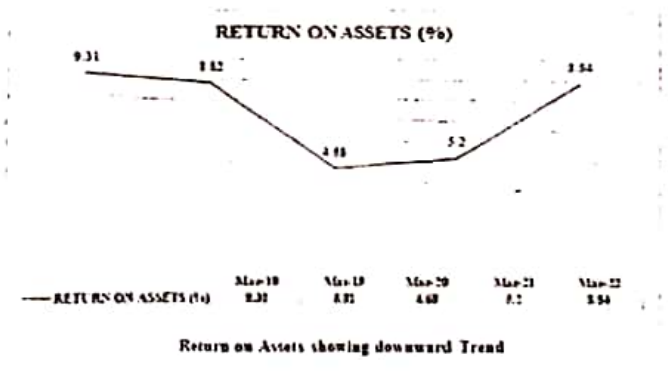
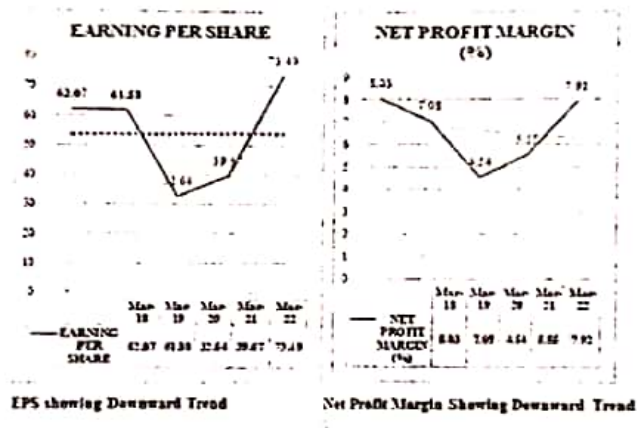
EPS showing Downward Trend

Net Profit Margin Showing Downward Trend

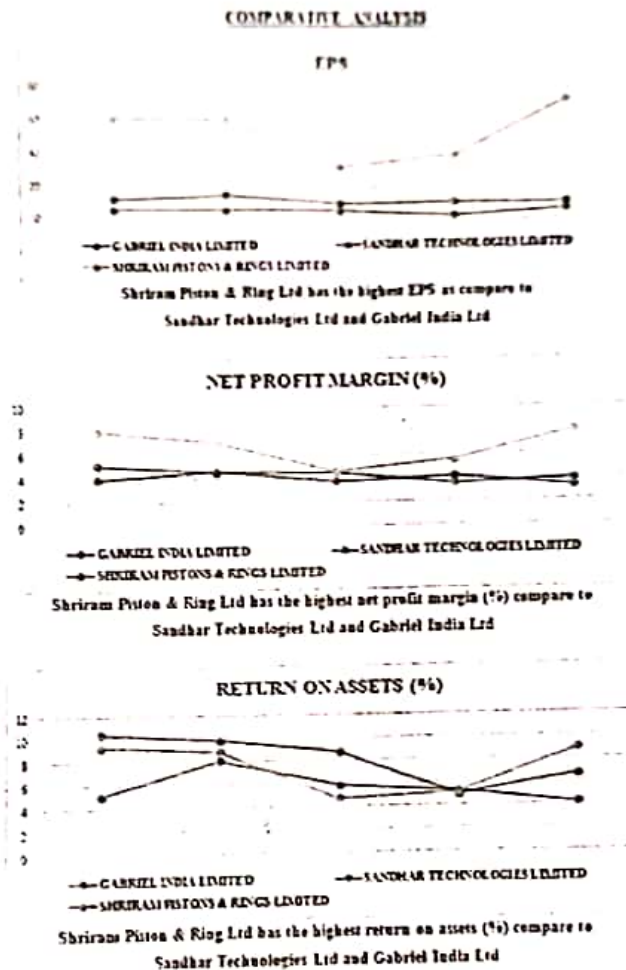


Shriram Pistons & Rings Ltd

SHRIRAM PISTONS & RINGS LTD



Comparative Analysis



Findings and Conclusions

The present research presents the subsequent results and conclusions derived from a comprehensive analysis of statistical observations:

1. The EPS of Gabriel India Ltd, Shriram Piston & Ring Ltd, and Sandhar Technologies Ltd exhibit a declining pattern.
2. The net profit margin percentage of Gabriel India Ltd, Shriram Piston & Ring Ltd, and Sandhar Technologies Ltd exhibits a declining pattern.