### IMPACT OF FINANCIAL PERFORMANCE INDICATORS AND COVID-19 ON THE PROFITABILITY OF AUTOMOBILE SECTOR

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#### **ABSTRACT**

Since the beginning of the pandemic, there has been interest in how COVID-19 and financial performance indicators will affect the profitability of the automotive sector. In addition to examining the impact of the pandemic on the profitability of the automotive industry, this study aims to examine the relationship between financial ratios like liquidity, solvency, and profitability. The pandemic has disrupted the automotive industry's supply chain, decreased demand for cars, and reduced car production. The study uses a data of 15 long years for the analysis. And the data of 2019 to 2021 for analyzing covid-19 impact. The study's findings suggest that in order to ensure long-term profitability, automakers must keep their liquidity and profitability at high levels while controlling their debt loads. In addition, businesses must adjust to the pandemic's new realities and come up with creative ways to manage their supply chains, reduce risks, and generate new revenue.

#### INTRODUCTION

Financial performance gauges how well a company can generate revenue using the resources from its main operating strategy. The company's financial performance is also represented by it. Financial performance is used by analysts and investors to evaluate similar companies in the same industry or to contrast entire sectors or industries. The financial performance of a company should be of interest to all of its stakeholders because it provides insight into its capacity to generate revenue, uphold its financial stability, and fulfill its obligations. This information can be used by stakeholders to make well-informed decisions about their investments or affiliation with the company.

The widespread illness known as COVID 19 included everything from minor illnesses like fleas to more severe conditions like severe acute respiratory syndrome. In December 2019, the covid-19 was found in Wuhan, China. People are generally cautious about conducting business in the 200 countries that are affected. In addition, the Indian government implemented a 55-day nationwide lockdown to minimize the impact on the economy in March 2020. The COVID-19 had an effect on each person's standard of living and income levels globally. The pandemic rocked the entire world and tore apart the economies.

#### **REVIEW LITERATURE**

### THE IMPACT OF COVID-19 ON THE AUTOMOTIVE INDUSTRY IN INDIA (Gaddipati Raama Haneesh, Abhishek Venkteshwar) 2021

Customer perception is a key factor in determining the success or failure of a brand. Current, Customer perceptions are changing rapidly, impacting every industry and should be taken into account t important. The survey found that customers are focused on the current situation Save more than spend.

# SELECTION OF THE BARRIERS OF SUPPLY CHAIN MANAGEMENT IN INDIAN MANUFACTURING SECTORS DUE TO COVID-19 IMPACTS (Tapas Kumar Biwa's\*, Manic Chandra Das) 2020

The corona virus (COVID-19) epidemic is clearly affecting nearly all firms' supply networks. The supply chain has faced numerous challenges, whether it is frozen meals and supermarket products, emergency items, or even services. It is vital for industrial industries with complicated supply chains to create crisis management techniques. financial flow.

#### Impact of Covid 19 on Industrial Sector - A Study (Dr.B.V.Kapparashetty) 2020

The author examines the impact of the Covid-19 virus on the total industrial sector and its impact on the economy in this research. The continuous lockdown has put a significant burden on the manufacturing industry, which accounts for about 20% of GDP. 50% of this total The automobile industry contributes.

### COVID-19 Impact on the Sharing Economy Post-Pandemic (Paul P. Vinod1 and Dipasha Sharma) 2021

Coronavirus Disease 2019 (COVID-19) was detected in December 2019, and within a month, it had spread throughout the globe, affecting more than 180 countries. This outbreak caused in lockdowns and massive preventative measures to contain the pandemic in several nations.

### COVID-19: A nightmare for the Indian Economy (CA .Kamakshi Mehta, Mr Shiv SwaroopJha) 2020

Our study's goal is to perform and complete a retrospective examination of the macroeconomic consequences of the numerous pandemics that have occurred to date. As well as forecasting the impact of Covid -19 on the Indian economy Covid -19 is a highly contagious disease in the SARS COV-2 family.

#### The Impact of COVID-19 on Consumers: Preparing for Digital Sales (—RAE YULE KIM) 2020

—COVID-19 has had an impact on everyone's day-to-day life. At least 316 million people in 42 states have been instructed to stay at home in order to slow the spread of the virus. Pandemic. Businesses have been prone to significant modifications in this regard. Many firms' workplace operations have gone virtual.

### The covid-19 in India- impacts on the economy and the automobile sector (MRS. LAVANYA P, DR. SUBBA RAYUDU THUNGA, DR. N. Y. RAJU) 2021

This paper demonstrates the impact of the Indian economy's lockdown, particularly on the automobile sector. The results show that, depending on the length of the lockdown, the Indian economy is likely to lose between 10 and 31% of its GDP, with a daily output loss of Rs 2300 crore in the automobile sector.

### IMPACT OF COVID-19 PANDEMIC ON THE INDIAN INSURANCE SECTOR (Dr. V. PARVATHI, DR. C. LALITHA) 2021

The COVID-19 Pandemic has caused massive economic shocks around the world due to business interruptions and shutdowns, leading to the worst financial crisis in history. India is one of the countries badly impacted by the lethal new corona virus despite the fact that the insurance business has been severely impacted by the Pandemic, the future appears bright.

# COVID-19 Induced Supply Chain Disruptions and Automotive Industry: A Case Study of Maruti Suzuki India Limited and Mitigation Strategies (Tapas Sudan\*, RashiTaggar) 2022

The research examined the impact of the COVID-19 pandemic-induced supply chain disruptions (SCDs) on the Indian automotive industry (IAI) through a case study of Maruti Suzuki India Limited (MSIL), which accounts for almost half of the Indian automotive market, and provided mitigation methods as well as a SCDs recovery model.

# COVID-19 shatters global automotive industry; sales of metal powder take a nosedive amid wavering demand (Nikhil Kaitwade) 2020

Environmental issues are being raised as a result of the rising use of conventional automobiles. Governments and activists all around the world As a result, governments around the world have been providing incentives for the use of electric vehicles.

# Exports and Imports Stagnation in India during Covid-19- A Review (Dr. D. Paul Dhinakaran, Dr. N. Kesavan) 2020

The current paper examines the stagnation of India's exports and imports during COVID-19. The writers investigated India's exports and imports at a glance, changes in the industrial sector, India's industry and infrastructure at a glance, economic inflation, foreign trade and national income present scenario, inflation prognosis, Union budget 2020-21, and the COVID-19 dispute.

#### Covid-19 Pandemic Impact in India (Rahul Kumar)

India is a major auto exporter. This export is done in various nations across the world.. According to a report by The Society of Indian Automobile Manufacturers (SIAM), overall auto sales decreased 45% in March due to the spread of Covid-19. Every day, the automobile industry loses Rs. 2,300 crore owing to production shutdown during the Lockdown.

# The COVID-19 outbreak and stock market reactions: Evidence from Australia (MdLutfur Rahman a, Abu Amin b,\*, Mohammed Abdullah Al Mamun) 2021

We investigate how the Australian stock market responded to the COVID-19 pandemic's uncertainty and if the government's stimulus programme helped restore market confidence..

# The impacts of the COVID-19 crisis on the automotive sector in Central and Eastern European Countries (Caroline Klein, Jens Høj, Gabriel Machlica) 2021

The purpose of this research is to look into the impact of the COVID-19 issue on the automotive industry in Central and Eastern Europe. It describes the consequences of the epidemic and accompanying lockdown measures on industry activities.

# Impact of COVID - 19 on stock price of NSE in automobile sector (Dr. S. Rajamohan, A. Sathish, Abdul Rahman) 2020

The mood in the world's stock markets is pessimistic. This is evident in the recurrent crashes in stock markets around the world. India's financial markets are thriving. As a result of the repercussions in global markets, there is currently high volatility

# The Impact of the COVID-19 Pandemic on the U.S. Economy: Evidence from the Stock Market (Willem Thornback) 2020

The Coronavirus crisis has harmed the American economy. This research investigates its influence using the stock returns of 125 sectors. It decomposes returns into sector-specific components.

# A REVIEW OF THE ECONOMIC IMPACT OF THE COVID-19 PANDEMIC ON THE AUTOMOBILE INDUSTRY IN MALAYSIA ( Wong Sing Yun, ) 2022

The COVID-19 epidemic has had a devastating influence on numerous industrial sectors' production and sales. A wealth of previous studies has provided light on the harmful consequences of the pandemic crisis on these industries.

# Impacts of COVID-19 on Global Supply Chains: Facts and Perspectives (ZHITAO XU, ADEL ELOMR, LAOUCINE KERBACHE,)

The COVID-19 pandemic has caused considerable damage to various industries worldwide. Availability and supply of a wide range of raw materials, intermediate goods, and finished products have been seriously disrupted.

# Understanding systemic disruption from the Covid-19-induced semiconductor shortage for the auto industry (Vinay Ramania, Debabrata Ghoshb, ManMohan S. Sodhi)

We have been able to study systemic disruptions that affect entire industries thanks to Covid-19. This article investigates how disruptions begin, spread, and persist over time by examining the semiconductor chip scarcity experienced by the auto industry in the years following Covid-19 in 2020

# THE IMPACT OF COVID 19 IN INDIAN ECONOMY - AN EMPIRICAL STUDY (Dr. Kishore Kumar Das, ShaliniPatnaik) 2022-12-06

The current pandemic situation has had a significant negative impact on Indian business. The domestic impact of the corona virus pandemic COVID-19 could result in Domestic demand is slowing.

# Impacts of the COVID-19 pandemic on EU industries (Jan Maarten DE VET, Daniel NIGOHOSYAN, Jorge NÚÑEZ FERRER, Ann-Kristin GROSS, Silvia KUEHL, and Michael ) 2021

The COVID-19 crisis had a significant impact on the EU27 economy, prompting unprecedented policy responses across the board. Europe and the world. With evidence on the effects on EU industry manifesting until the beginning of 2021.

# COVID-19 Impacts and Sustainability Strategies for Regional Recovery in Southeast Asia: Challenges and Opportunities (Suparak Suriyankietkaew, Suthep Nimsai) 2021

The COVID-19 pandemic issue jeopardises our progress toward meeting the United Nations Sustainable Development Goals (UN SDGs). There have been few studies of its effects on sustainable development in emerging countries and fast-growing regional growth, such as Southeast Asia or the Association of Southeast Asian Nations (ASEAN).

# Impacts of COVID-19 on the electric vehicle industry: Evidence from China (W. Wen a, S. Yang a, P. Zhou a,\*, S.Z. Gao b) 2021

Electric vehicle development is critical for achieving long-term goals, while COVID-19 hits the market and challenges the entire industry. China, one of the first regions to be afflicted by COVID19 and a major player in the global electric vehicle market.

# COVID-19 and Indian Economy: Impact on Growth, Manufacturing, Trade and MSME Sector(Pravakar Sahoo and Ashwani 2020)

The study aims to assess the impact of COVID-19 on the Indian economy by analysing its impact on growth, manufacturing, trade, and the micro, small, and medium enterprises (MSME) sector, and to highlight key policy measures to mitigate the potential economic fallout.

# IMPACT OF FINANCIAL PERFORMANCE INDICATORS (FPIs) ON PROFITABILITY (\*Dr. T. Muthu Pandian and Mr. Narendran )

Most businesses utilise financial data to distribute resources to various departments. As a result, examining financial data and financial performance indicators becomes critical for assessing an organization's financial health..

#### DATA AND METHODOLOGY

Study Type: Descriptive Study

- Data : Indian automobile manufacturers, auto component manufacturers of india, annual reports of Mahindra and Mahindra automobile and Tata motors
- Period of data: 2007 to 2021
- Tools and techniques used: Descriptive statistics, SD, SV, Regression

#### DATA ANALYSIS AND FINDINGS

SUMMARY OUTPUT (tata)

Regression Statistics				
Multiple R	0.581719574			
R Square	0.338397663			
Adjusted R Square	0.067051571			
Standard Error	0.649824652			
Observations	15			

ANOVA

	df	SS	MS	F	Significance F
Regression	4	2.375830069	0.593957517	1.875433866	0.191407174
Residual	11	4.64499286	0.422272078		
Total	15	7.020822929			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	-1.142429201	1.952979168	-0.584967428	0.570373912	-5.440907365
liquidity ratio (tata)	4.923894526	2.942540371	1.673348164	0.122425843	-1.552593159
debt equity ratio (tata	0.220322663	0.097406484	2.26188908	0.044942852	0.005932437
debt to asset ratio (ta	-16.72198151	7.096756523	-2.35628508	0.038062698	-32.34183729
debt to net worth ratio	0	0	65535	0.02980527	0

The above table indicates that R-Square value is 0.3383 that is 33.83% which indicates that Debt to net worth Ratio, debt equity ratio, liquidity ratio, debt to asset explains 33.83% variation in Return on investment. This implies that Debt to net worth Ratio, debt equity ratio, liquidity ratio, debt to asset is impacting the Return on investment to an extent of 33.83% and remaining 66.17% of the impact is experienced by other independent variables which are not considered in this study

SUMMARY OUTPUT

(mahindra and mahindra )

Regression Statistics				
Multiple R	0.483856946			
R Square	0.234117544			
Adjusted R Square	-0.06566858			
Standard Error	0.19833381			
Observations	15			

#### ANOVA

	df	SS	MS	F	Significance F
Regression	4	0.132268988	0.033067247	1.120839091	0.399772294
Residual	11	0.432699301	0.0393363		
Total	15	0.564968289			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	0.392472567	0.887777392	0.442084435	0.666993859	-1.561512297
liquidity ratio ( mahindra	0.098834988	0.757820174	0.130420106	0.898588567	-1.569115969
debt equity ratio ( mahinc	-0.030661715	0.025319753	-1.210980041	0.251278502	-0.086390115
debt to asset ratio ( mahii	0.012088896	0.737439668	0.016393064	0.987214371	-1.61100487
debt to net worth ratio (r	0	0	65535	0.687245112	0

The above table indicates that R-Square value is 0.23411 that is 23.41% which indicates that Debt to net worth Ratio ,debt equity ratio, liquidity ratio, debt to asset explains 23.41% variation in Return on investment. This implies that Debt to net worth Ratio ,debt equity ratio, liquidity ratio, debt to asset is impacting the Return on investment to an extent of 23.41% and remaining 76.59% of the impact is experienced by other independent variables which are not considered in this study except Debt- Equity Ratio.

#### **Post Pandemic Regression**

#### **SUMMARY OUTPUT**

Regression Statistics				
Multiple R	0.999982			
R Square	0.999963			
Adjusted R	-1.22222			
Standard E	3.87359			
Observatio	1			

#### **ANOVA**

	df	SS	MS	F	Significance F
Regression	11	3679651	334513.7	245233.2	0.9294381
Residual	9	135.0423	15.0047		
Total	20	3679786			

The above table indicates that R-Square value is 0.99982 that is 99.98% which indicates that Debt to net worth Ratio ,debt equity ratio, liquidity ratio, debt to asset explains 99.98% variation in Return on investment. This implies that Debt to net worth Ratio ,debt equity ratio, liquidity ratio, debt to asset is impacting the Return on investment to an extent of 99.98% and remaining 0.02% of the impact is experienced by other independent variables which are not considered in this study except Debt- Equity Ratio

#### **FINDINGS**

By all this above analysis we can find out that none of the ratios have been increased with an increase in the return on investment ratio.

Because financial performance indicator ratios and return on investment are inversely related to one another, a rise in profitability will have an impact on the company's financial performance indicators, and an excessive emphasis on the metrics will have a significant negative impact on the profitability of the company.

But post pandemic the financial performance indicators have influenced the profitability of the firms thereby giving a boost to the profit making ability to the firms

#### CONCLUSION

As the COVID-19 crisis persists, many global industrial products companies are facing difficult times, including production halts due to supply chain disruption, cost escalation, and workforce dislocation. What long-term effects industrial product companies can expect, and what steps can be taken to help keep them agile and risk-free in the future.

The profitability of the Indian automotive industry has been significantly impacted by Covid-19. The closure of factories and dealerships as a result of the nationwide lockdown in India, which was put in place to stop the virus' spread, reduced output and sales. Many businesses in the industry have seen a decline in their financial performance as a result of consumer spending declines, supply chain problems, and a decline in the demand for automobiles.

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