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IMPACT OF DEMONETIZATION ON PROFITABILITY OF INDIAN TWO WHEELER VEHICLE MANUFACTURING INDUSTRY

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ABSTRACT

Automotive sector is the backbone of any economy. Indian two wheeler vehicle segment is one of the key area of economy which provides transport facility to a large proportion of population. The income of the target customers group in India has increased in multiples which has played an important factor in increased demand for vehicles which further has led to development of the industry. Looking to the high growth aspect of the industry in the upcoming years an unexpected implementation of the demonetization in India brought a shock in the market demand of two wheeler vehicles. Financial statements of the companies were analyzed to measure pre and post profitability performance of the company with reference to implementation of demonetization. Such analysis highlighted significant difference in profitability of various companies between pre and post demonetization. A slight decrease in average of various ratios was found during post demonetization as compared to pre demonetization.

Keyword: Financial Analysis, Profitability, Ratio Analysis, Demonetization, Two Wheeler Industry

INTORDUCTION

Indian is one of the fastest growing economies of the modern times. India holds an important place in developing economies of the world. It is difficult to neglect Indian when it comes to international business. Indian hold a key position in imports of various countries and it is inevitable for India as well to hinder its export income. India ranks second in terms of population on the globe. Urbanization process has increased the size of cities of the country and high level of concentration in population is seen in urban areas. This has also led to high pressure on increasing the supply of basic facilities that are provided all over the country. Personal transportation has become a key necessity now a day because of increased size of the cities and increased connectivity of various rural and urban cities. Two wheelers help the people in owning personal vehicles for transportation as they are comparatively cheap as compared to cars and also proves to be cost effective. Indian is the second largest manufacturer of two wheelers in Asia. There has been a raging increase in the demand of two wheelers in past years in India. On the other hand it has become easier to get finance for the vehicles which have added to the demand of two wheelers. Even the industry has started

providing sophisticated vehicles with higher cubic capacity backed with higher mileage. Hero Honda Ltd had been dominating this segment from a long period and had the largest market share holding in India. Honda has occupied a major share of the industry after the end of the joint venture between Hero and Honda. The leading players of the industry are Bajaj, Hero, Honda, TVS, Suzuki and Yamaha.

Demonetization in India

Prime Minister Narendra Modi held a press conference on 8th November 2016 at 08:00 PM and the announcement of Prime Minster hit the Indian economy like a tsunami. Demonetization of 500 and 1,000 Rupee notes was declared and such notes were planned to be replaced by issuance of new 500 and 2,000 Rupee notes. The motive behind such demonetization was to fight with black money, corruption and terror funding. Such step brought down the GDP by 1.5 percent which is estimated to have a loss of 2.25 lakh crores per year. Majority of the sectors involving cash transaction were affected adversely.

LITERATURE REVIEW

(2018) Ajay Nigade and Dr Ramesh Sardar "Performance analysis of Auto industry during 15-17" presented the increased spending capacity of people of India increased production of vehicles in commercial vehicle, passenger vehicle and two wheeler industry. Two wheeler Industry has grown at a rate of 14.41% in the year 2018. The two wheeler industry holds around 80% of market share. (2017) Dr. Sudesh Kumar, Ms. Sunandan Bumra in their study on "Demonetization in India, pre and Post effect on Industry" showed that there was a decrease of 22% in the sales of two wheelers in India and maximum decreased was seen in the three wheeler segment which declined by 25.9%. Export in the automobile segment

has reduced by 35% in the year 2016. (2010) Arpit Guru and Shruti Kahanijow analyzed that, there runs a shadow economy which is based on cash transactions along with the main economy in any country. Such shadow economy is the source of generation of black money. Black money has its reach all over India up to a large extent. Various problems of such black money in our economy were also discussed in the paper. (2012) Sarbapriya Ray in his study, "Economic performance of Indian Automobile Industry: An Econometric Appraisal" found that the capacity utilization of the companies was not optimum and such has increased after the reform of 1991. A positive correlation was found between the size of the company and capacity utilization. Exports can be increased if proper care is given on such aspect. Such change will also increase the production of automobiles in Indian in the near future. (2010) Sukanta Sarkar conducted a study on the parallel economy in India focusing on the causes and impacts of black money in India. Political situations and bureaucratic procedures of Indian are the key reasons for generation of black money in India. The study concludes that laws should be implemented properly to control black money.

RESEARCH METHODOLOGY

Objectives

The objective of the study is to elaborate the profitability of Indian two wheeler vehicle manufacturers and there by highlight the effect of Implementation of demonetization (2016) on their profitability. The study focuses on the key players of Indian two wheeler vehicle manufacturers of India. It become inevitable to understand the effects of various economic aspects that are taking place in an economy on the company's performance. Such analysis aims at

finding the effect of demonetization of 2016 on the two wheeler manufacturers of India.

Following are the objective considered for the aforesaid research problem:

☐ Measuring impact of Demonetisation (2016) on Net Profit Margin ratios of the companies.

☐ Measuring impact of Demonetisation (2016) on Operating profit Margin ratios of the companies.

☐ Measuring impact of Demonetisation (2016) on Return on Asset ratios of the companies.

☐ Measuring impact of Demonetisation (2016) on Return on Capital Employed ratios of the companies.

☐ Measuring impact of Demonetisation (2016) on Return on Equity ratios of the companies.

Hypothesis

H0: There is no significant difference in profitability ratios with reference to pre Demonetization and post demonetization. ($\mu1 - \mu2 = 0$)

H1: There is significant difference in profitability ratios with reference to pre Demonetization and post demonetization ($\mu1 - \mu2 \neq 0$)

Data Collection

This paper is an attempt to study profitability position of key two wheeler manufacturing companies of India, based on secondary data of the companies. The data includes Research Papers, Journals, Books, Articles, Newspapers, Websites etc...

The Financial data for performing the analysis and proving the hypotheses is collected from EMIS data base.

Period of the study:

The research will be conducted the time period starting from 2013 - 2014 till 2018-2019.

DATA ANALYSIS METHODS

Ratio Analysis

There are various tools available for measuring financial performance of companies. Ratio Analysis technique analyses the two variable of a company and there by helps in drawing some logical conclusions.

The ratios can be classified in to Profitability ratios, Liquidity ratios, Solvency ratios and Efficiency ratios. The scope of study is confined to study of profitability ratios

The ratios taken under the study are as follows:

1. Net Profit Margin Ratio
2. Operating Profit Margin Ratio
3. Return on Equity Ratio
4. Return on Asset Ratio
5. Return on Capital Employed Ratio

Statistical Test

The research hypothesis will be tested with the help of Paired T-Test analysis. Such test helps to determine the difference in mean between two group of observation. It is commonly used to measure the difference in the variable before and after intervention of some act.

Samples

The samples for the study are selected on the basis of convenience sampling which is one of the types of non probability sampling. Many companies working in India like Honda, Suzuki, Yamaha etc… do not provide with quarterly results and thus only those companies are selected which have maintained and published their quarterly result. Such selection will help to understand accurately the effect of demonetization on the profitability of the companies.

Scope of Study

A comparative analysis of profitability with reference to pre and post demonetization is undertaken. There are about very limited two wheeler vehicle manufacturing companies working in

India forming a oligopoly situation in the market. The company selected is working in Indian as on 31-10-2018.

Limitation of Study

The analysis of the data is dependent on the accuracy of the financial data. Tool for analysis might differ from researcher to researcher and other than Ratio analysis other tool can also be used.

Companies under study:
1. Bajaj
2. Hero Motorcop
3. TVS

RATIO ANALYSIS

Companies	Return on Asset				Return on Capital Employed				Return on Equity			
	2018	2017	2016	2015	2018	2017	2016	2015	2018	2017	2016	2015
Bajaj	17.08 %	18.39 %	23.84 %	18.08 %	20.94 %	22.06 %	29.17 %	25.71 %	21.29 %	22.47 %	29.62 %	26.32 %
Hero	22.09 %	22.98 %	25.38 %	22.67 %	30.11 %	32.08 %	38.33 %	36.47 %	31.42 %	33.40 %	39.43 %	36.47 %
TVS	9.23 %	9.45 %	9.88%	7.55 %	19.80 %	18.59 %	18.85 %	15.01 %	23.00 %	23.17 %	24.98 %	21.14 %

Source: EMIS Database

Post Demonetization Results

Companies	Years										
	Q2-2019	Q1-2019	Q4-2018	Q3-2018	Q2-2018	Q1-2018	Q4-2017	Q3-2017	Q2-2017	Q1-2017	Q4-2016
Net Profit Margin											
Bajaj	14.72 %	15.35 %	16.24 %	15.25 %	17.21 %	17.34 %	16.69 %	18.58 %	18.87 %	16.34 %	18.08 %
Hero	10.74 %	10.32 %	11.30 %	11.02 %	12.08 %	11.47 %	10.33 %	12.36 %	13.09 %	12.11 %	11.10 %
TVS	4.23 %	3.53 %	4.15 %	4.19%	5.26 %	3.81 %	4.46 %	4.13 %	7.87 %	4.25 %	4.86 %
Operating Profit Margin											
Bajaj	16.23 %	16.67 %	18.45 %	18.52 %	18.90 %	16.20 %	17.28 %	19.43 %	20.49 %	18.28 %	20.51 %
Hero	15.96 %	15.27 %	14.27 %	15.46 %	17.19 %	16.24 %	11.89 %	17.40 %	18.28 %	16.94 %	14.32 %
TVS	6.54 %	5.55 %	4.67 %	6.04%	7.71 %	5.59 %	2.96 %	5.65%	6.59 %	5.98 %	4.75%

Source: EMIS Database

Pre Demonetization Results

Companies	Years										
	Q3-2016	Q2-2016	Q1-2016	Q4-2015	Q3-2015	Q2-2015	Q1-2015	Q4-2014	Q3-2014	Q2-2014	Q1-2014
Net Profit Margin											
Bajaj	16.50 %	15.60 %	18.43 %	13.44 %	15.60 %	10.14 %	14.42 %	15.84 %	17.63 %	16.18 %	15.02 %
Hero	11.09 %	11.45 %	10.94 %	7.12 %	9.12 %	11.12 %	53.09 %	8.59 %	7.66 %	8.95 %	-
TVS	3.70 %	4.09 %	3.48 %	3.76 %	3.45 %	3.60 %	3.20 %	2.46 %	4.53 %	3.70 %	4.09 %
Operating Profit Margin											
Bajaj	23.6 6%	23.20 %	27.14 %	16.7 4%	22.52 %	19.84 %	20.95 %	18.39 %	25.17 %	23.15 %	20.76 %
Hero	15.4 7%	15.97 %	15.27 %	11.1 8%	13.01 %	15.35 %	72.50 %	9.62 %	9.13 %	10.46 %	-
TVS	5.66 %	6.01 %	5.06 %	4.32 %	4.71%	4.80 %	4.70 %	4.84 %	4.76 %	5.66 %	6.01 %

Source: EMIS Database

Net Profit Margin

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	after	11.3707%	30	5.16146%	0.94235%
	before	11.3400%	30	9.39924%	1.71606%

Paired Samples Test

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	after – before	0.0306 7%	8.33997%	1.52266%	-3.08353%	3.14486%	.020	29	.984

In the paired sample statistics it can be seen that before demonetization was implemented in India the average net profit margin ratio was 11.34% which was 11.37% post demonetization.

Paired sample T-Test table generated the value of T-statistics of 0.020 with associated significance value 0.984, which is more than 0.05 (Chossen α value). Therefore null hypothesis is accepted and it can be concluded that there is no significant difference between net profit margin ratio of various companies before and after demonetization.

Operating Profit Margin Ratio

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	after	13.7053%	30	5.63773%	1.02930%
	before	15.8113%	30	13.02251%	2.37757%

Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	after - before	-2.10600%	11.81603%	2.15730%	-6.51818%	2.30618%	-.976	29	.337

It can be seen from the above analysis that the mean operating profit ratio was 13.7% after implementation of demonetization which was 15.81% before demonetization was implemented in India. Paired sample T-Test table generated the value of T-statistics of -0.976 with associated significance value 0.337, which is more than 0.05 (Chossen α value). Therefore null hypothesis is accepted and

it can be concluded that there is no significant difference between operating profit margin ratio of various companies before and after demonetization.

Return on Equity Ratio

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	after	25.7917%	6	5.20634%	2.12548%
	before	29.6600%	6	7.03533%	2.87216%

Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	after - before	-3.86833%	3.90009%	1.59221%	-7.96123%	0.22456%	-2.430	5	.059

It can be seen from the above analysis that the mean operating profit ratio was 25.79% after implementation of demonetization which was 29.66% before demonetization was implemented in India.

Paired sample T-Test table generated the value of T-statistics of -2.430 with associated significance value 0.059, which is more than 0.05 (Chossen α value). Therefore null hypothesis is accepted and it can be concluded that there is no significant difference between Return on Equity ratio of various companies before and after demonetization.

Return on Asset Ratio

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	After	16.5367%	6	5.99490%	2.44741%
	Before	17.9000%	6	7.55595%	3.08471%

Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	after – before	-1.36333%	3.14942%	1.28575%	-4.66845%	1.94178%	-1.060	5	.337

It can be seen from the above analysis that mean Return on Asset was 16.5% after demonetization which was 17.9% before demonetization.

Paired sample T-Test table generated the value of T-statistics of -1.060 with associated significance value 0.337, which is more than 0.05 (Chossen α value). Therefore null hypothesis is accepted and it can be concluded that there is no significant difference between Return on asset ratio of various companies before and after demonetization.

Return on Capital Employed Ratio

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	After	23.9300%	6	5.70306%	2.32826%
	Before	27.2567%	6	9.31891%	3.80443%

Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	after – before	-3.32667%	4.80030%	1.95972%	-8.36428%	1.71094%	-1.698	5	.150

From the above analysis it can be see that mean Return on Capital Employed Ratio was 23.9% post demonetization which was 27.25% pre demonetization.

Paired sample T-Test table generated the value of T-statistics of -1.698 with associated significance value 0.150, which is more than 0.05 (Chosen α value). Therefore null hypothesis is accepted and it can be concluded that there is no significant difference between Return on Capital Employed ratio of various companies before and after demonetization.

CONCLUSION

The overall growth of economy was disturbed due to sudden and unplanned implementation of demonetization of 2016. There was an acute cash shortage in the economy which has lead to decreased economic activity in the economy. Those businesses which had more dependence on

the cash transactions were badly affected. Growth rate of the economy came down by around two and half percent due to implementation of demonetization. Two wheeler Industry remained unaffected in the financial year 2016-2017, the year in which demonetization was implemented. The intention to curb the black money of the economy did not adversely affect the shine of the growth rate of two wheeler manufacturing industry. It can be seen from the above research that the company's profitability ratios did not show significant difference in relation to pre and post performance of the companies. There was a slight decrease in the profitability ratios of the companies in the years post to 2016. It can be understood from the research that the motive to curb black money out of economy was not fulfilled as around 96% of the cash in the economy was deposited in the banks.

Some product-level alterations in the economy segment vehicles by leading players have led to a boost in sales of vehicles in such segment. Sale of scooters are expected to grow at a sharp pace due to increased disposable incomes along with increased demand in the rural market and also an increase in women customers. Multiple ownership due to the convenience received from two wheeler is also seen now a day. During the recent years, the two-wheeler manufacturers in India achieved maximum two-wheeler production at 23 million for this first time. Thus there remains a bright future for companies manufacturing two wheelers in India. Companies working are already well established and have shown their efficiencies in maintaining their growth rate during economic emergencies like demonetization.

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