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FACTORS INFLUENCING THE PROFITABILITY POSITION OF THE SELECTED AUTOMOBILE COMPANIES IN CARS AND JEEPS SECTOR IN INDIA

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Abstract
An attempt has been made in the present study is to test the factors that influence the profitability of Cars and Jeeps sector companies in Automobile industry in India. For this three companies have been selected Maruti Suzuki India Limited (MMIL), Mahindra & Mahindra Ltd (MML) and Hindustan Motors Ltd (HML). For examining the influencing factors of profitability, the variables Current Ratio, Fixed assets to Networth Ratio, Total Assets Turnover Ratio, Fixed Assets Turnover Ratio, Debtors Turnover Ratio and Working Capital Turnover Ratio have considered as independent variables. The variable Net Profit Ratio is considered as dependent variable. Correlation and multiple regression analysis used to examine the influencing factors. The results found that no variables have influenced the net profit ratio of MSIL, MML and all the selected variables have influenced the net profit ratio in the company HML.

Introduction

India was the fourth largest motor vehicle/car manufacturer in the world in 2016. Indian auto manufacturers produced a record 25.3 milion motor vehicles in 2016-17 (Apr-Mar), incl. 3.79 million passenger vehicles. India is the largest manufacturer of three-wheelers (0.78 m units) and fourth largest in commercial vehicle (0.81 m units) manufacturing. India is the largest manufacturer of two-wheelers (19.9 m units) and tractors (sales ca 0.58 m units or around 1/3 of global output) in 2016-17. Construction vehicle production was approx. 59000 in 2014. 2.03 million passengers cars were sold in India in 2015 (total car production amounted to 3.68 m units in 2016). The total turnover of the auto industry amounted to ca USD 145 billion in 2015-16 and the total installed capacity was ca 32 m units at the end of 2014-15. Over 13 million people work directly or indirectly in the auto industry.

Indian passenger vehicle exports amounted to 0.75 m (incl. 0.58 m passenger cars) units in 2017-18 while 2.34 m two-wheelers (mainly motorcycles), 0.11 m commercial vehicles and 0.27 m three wheelers were shipped overseas in the previous year. Major car models exported include Hyundai Verna and Creta, Nissan Micra and Sunny, Ford EcoSport and Volkswagen Vento. Over 43 000 medium and heavy duty trucks were exported from India in 2016-17 incl. makes such as Daimler, Mitsubishi Fuso, Tata Motors and Ashok Leyland.

Domestic motor vehicle sales in 2016-17 included 3.05 m passenger vehicles, 0.71 m commercial vehicles, 0.51 m three wheelers and 17.59 two-wheelers. A relatively hefty increase in the luxury car segment took place in 2017 as over 39 000 cars were sold compared to 33 000 units in 2016. The total turnover of the Indian automotive component industry stood at USD 43.5 billion in 2016-17. Auto ancillary exports fetched USD 10.9 bn in the same year while the total turnover of India's vehicle tyre industry amounted to an estimated Rs.450 billion in 2013-14. The total number of registered motor vehicles reached approx. 230 million in March 2016.

Review of Literature

Ramya, et al., (2017) divulged that financial was regarded as the life blood of a business enterprise. In the modern oriented economy, finance was one of the basic foundations of all kinds of economics activities. Finance statements were prepared primary for decision-making. They played a dominant role in setting the frame work and managerial conclusion can be drawn from these statements. The study entitled that Financial performance analysis of Ashok Leyland company Ltd. throw light on overall financial performance of the company. For this analysis, the tools used were Trend Analysis and Comparative Balance sheet. Results indicated that the performance of Ashok Leyland in the study period had been excellent. Neeraj Kumar and Kuldip Kaur, (2016) discussed in their study that the size and profitability relationship in the Indian automobile industry. The empirical evidence on size and profitability was vast and showed variations in results; few reported positive and few negative relationships between size and profitability. To analyze the relationship, the linear regression model had been employed over the years 1998 to 2014 as well as cross-sectionally. For profitability, ratio of net profit to total sales turnover and ratio of net profit to net assets plus working capital had been used whereas firm size was represented by total sales turnover and net assets. The study found mix results ; time-series analysis showed the positive relationship and cross-section analysis showed that there exists no relationship between firm size and profitability. Majid Jami and Mahdi Naqdi Bahar, (2016) determined in their study that profitability measured were important tools to use of company’s managers and owner alike. Profitability ratios showed a company’s overall efficiency, health and performance. Financial performance analysis clarified strengths and weaknesses of the company in terms of amount and importance. This

study analyzed the profitability ratios to evaluation of performance of Indian automobile industry. The objective of the study was to analyze the financial performance of the selected Automobile companies with regard to various profitability indicators. The study intended to examine ROA, ROE, ROS and Operating Ratio in automobile industry over a period of 7 years from 2007-8 to 2013-14. The sample units had been selected from CNX auto INDEX of Bombay Stock Exchange as A group companies. The analysis of regression coefficients revealed that ROA, ROE, ROS and Operating Ratio had no control over Share price.

Objectives of the study

1. To identify the positive and negative correlated factors that influence the profitability of the Cars and Jeeps sector companies in India.
2. To evaluate the influenced factors that determine the profitability position of the Cars and Jeeps sector companies in India.

Hypotheses of the study

1. There is a positive significant association between the selected profitability factors.
2. There is no positive significant relationship between the selected profitability factors and net profit ratio of the Cars and Jeeps sector companies in India.

Research Design

The study is based on secondary data. The data required for the study is extracted from the CMIE data. The study covers a period of 10 years from 2006-07 to 2016-17. For evaluate the factors that influence the profitability of the selected companies belongs to Cars and Jeeps sector in automobile industry, correlation analysis and multiple regression analysis have been applied.

Data Analysis

For the purpose of measuring the profitability performance of the selected automobile companies in Cars and Jeeps sector, correlation analysis and multiple regression analysis have been employed and discussed in the following tables.

Degree of Relationship of Selected Independent Variables with Net Profit Ratio (Correlation Analysis)

The relationship between the selected independent variables and the dependent variable net profit ratio has been found by using correlation analysis. Further, the result of the correlation analysis helps to identify what extent the selected independent variables predict the dependent variable net profit ratio. For this purpose, the result of the correlation between the independent and dependent variables is presented and discussed in the following table.

Table No. 6.1: Degree of Relationship of Selected Independent Variables with Net Profit Ratio (Correlation Analysis)

No.	Variables	MSIL	MML	HML
1	Current Ratio	-0.316 (0.374 ^{NS})	0.135 (0.710 ^{NS})	-0.777 (0.008*)
2	Fixed assets to Networth Ratio	-0.608 (0.062 ^{NS})	-0.476 (0.164 ^{NS})	-0.755 (0.012**)
3	Total Assets Turnover Ratio	0.325 (0.359 ^{NS})	-0.363 (0.303 ^{NS})	0.820 (0.004*)
4	Fixed Assets Turnover Ratio	0.098 (0.787 ^{NS})	0.553 (0.098 ^{NS})	-0.849 (0.002*)
5	Debtors Turnover Ratio	-0.266 (0.457 ^{NS})	0.179 (0.621 ^{NS})	-0.731 (0.016**)
6	Working Capital Turnover Ratio	-0.504 (0.138 ^{NS})	0.292 (0.414 ^{NS})	-0.830 (0.003*)

Note : * - Significant at 1% level; ** - Significant at 5% level; NS – Not Significant.

1. All the independent variables are having not significant association with the net profit ratio of the companies Maruti Suzuki India limited and Mahindra and Mahindra Limited.
2. From the company Hindustan Motors limited, total assets turnover ratio is having positive significant association with the net profit ratio. Further, the remaining variables current ratio, fixed assets to networth ratio, fixed assets turnover ratio, debtors turnover ratio and working capital turnover ratio are having negative significant association with the net profit ratio. It is found the analysis that total assets turnover ratio increases net profit ratio also positively increases. Further, the variables current ratio, fixed assets to networth ratio, fixed assets turnover ratio, debtors turnover ratio and working capital turnover ratio increases net profit ratio decreases.
3. From the results of the correlation analysis, in Hindustan Motors Limited, the hypothesis is accepted for a variable total assets turnover ratio. The other hypotheses are rejected.

6.2 Prediction of Selected Independent Variables on Net Profit Ratio – Multiple Regression Analysis

The result of the regression between the independent and dependent variables is discussed in the following table.

Table No.6.2: Prediction of Selected Independent Variables on Net Profit Ratio (Multiple Regression Analysis)

No.	Variables	MSIL		MML		HML	
		Co-efficients	't' Value ('p' Value)	Co-efficients	't' Value ('p' Value)	Co-efficients	't' Value ('p' Value)
	Constant	7.515		11.708		18.501	
1	Current Ratio	-0.369	-0.571 (0.608^{NS})	-3.781	-1.457 (0.241^{NS})	0.187	0.023 (0.983^{NS})
2	Fixed assets to Networth Ratio	-2.424	-1.243 (0.302^{NS})	-0.293	-0.383 (0.727^{NS})	-0.195	-0.080 (0.941^{NS})
3	Total Assets Turnover Ratio	0.322	0.124 (0.909^{NS})	-0.793	-0.595 (0.594^{NS})	-1.415	-0.507 (0.647^{NS})
4	Fixed Assets Turnover Ratio	-0.466	-0.190 (0.861^{NS})	0.395	0.539 (0.627^{NS})	-6.190	-0.727 (0.520^{NS})
5	Debtors Turnover Ratio	0.177	0.419 (0.703^{NS})	-0.980	-0.845 (0.460^{NS})	0.297	0.137 (0.899^{NS})
6	Working Capital Turnover Ratio	-0.024	-0.162 (0.882^{NS})	0.551	1.682 (0.191^{NS})	-0.639	-0.180 (0.869^{NS})
	R Value	**0.907**		**0.839**		**0.890**	
	R^2 Value	**0.822**		**0.705**		**0.792**	
	F Value	**2.315**		**1.193**		**1.903**	
	'p' Value	**0.262^{NS}**		**0.479^{NS}**		**0.319^{NS}**	

Note: * - Significant at 1% level;NS – Not Significant.

The resulted equation for Maruti Suzuki India limited.

Net Profit Ratio= 7.515 - 0.369 (Current Ratio) - 2.424 (Fixed assets to Networth Ratio) + 0.322 (Total Assets Turnover Ratio) - 0.466 (Fixed Assets Turnover Ratio) + 0.177 (Debtors Turnover Ratio)- 0.024 (Working Capital Turnover Ratio).

The resulted equation for Mahindra and Mahindra Limited.

Net Profit Ratio= 11.708 - 3.781 (Current Ratio) - 0.293 (Fixed assets to Networth Ratio) - 0.793 (Total Assets Turnover Ratio) + 0.395 (Fixed Assets Turnover Ratio) - 0.980 (Debtors Turnover Ratio) + 0.551 (Working Capital Turnover Ratio).

The resulted equation for Hindustan Motors limited.

Net Profit Ratio=18.501 + 0.187 (Current Ratio) - 0.195 (Fixed assets to Networth Ratio) - 1.415 (Total Assets Turnover Ratio) - 6.190 (Fixed Assets Turnover Ratio) + 0.297 (Debtors Turnover Ratio) - 0.639 (Working Capital Turnover Ratio).

The multiple linear regression co-efficient is found to be statistically fit as R^2 are 0.822, 0.705 and 0.792 for net profit ratio for the companies Maruti Suzuki India limited, Mahindra and Mahindra Limited and Hindustan Motors limited in the study period. It shows that the independent variables contribute about 82.2 percent, 70.5 percent and 79.2 percent of the variation in the net profit ratio. All the variables are not having any significant association in the net profit ratio. From the results of the above analysis, all the hypotheses have accepted.

Findings

1. All the independent variables are having not significant association with the net profit ratio of the companies Maruti Suzuki India limited and Mahindra and Mahindra Limited.
2. It is found from the correlation analysis of the company Hindustan Motors limited, total assets turnover ratio is having positive significant association with the net profit ratio.
3. From the multiple regression analysis that the company Maruti Suzuki India limited, the variables total assets turnover ratio and debtors turnover ratio are having positively influenced the net profit ratio.
4. The variables fixed assets turnover ratio and working capital turnover ratio are having positive influence on net profit ratio of the company Mahindra and Mahindra Limited.
5. If is found that the variables current ratio and debtors turnover ratio are positively influenced the net profit ratio of the company Hindustan Motors limited.

Recommendations and Conclusion

This study mainly focused on the factors that influenced the net profit ratio of the selected Cars and Jeeps sector companies Maruti Suzuki India limited, Mahindra and Mahindra Limited and Hindustan Motors limited. From the selected independent variables, the variables have not influenced the net profit ratio of the company Maruti Suzuki India limited and Mahindra and Mahindra Limited. So, the two companies should keenly concentrate their solvency position. On the other hand, the company Hindustan Motors Limited, influenced all the selected independent variables. So, the company should take necessary steps to concentrate the profitability factors. From the study of Cars and Jeeps sector of Automobile industry, the two companies Maruti Suzuki India limited and Mahindra and Mahindra Limited does not have any influence of selected profitability factors and the company Hindustan Motors Limited has major influence of profitability factors on its net profit.

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