Financial Performance of Automobile Companies in India using Extended DuPont Approach

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Abstract

The present study attempts to evaluate the financial performance of automobile companies in India by choosing six leading automobile companies like Bajaj Auto Limited, Eicher Motors Limited, Hero MotoCorp Limited, Mahindra and Mahindra Limited, Maruti Suzuki Limited and Tata Motors Limited for the period 2015- 2019. The main objective of the study is to measure financial performance of automobile companies in India using Extended DuPont approach. The Extended DuPont approach has emphasized on analysis of Return on Equity (ROE) which disaggregates performance into five components: pre-interest/ pre-tax margin, asset turnover, interest burden, tax efficiency and the equity multiplier. In the present study, a two-step methodology is employed: first, used Extended DuPont approach to calculate return on equity of six companies and coefficient of correlation has been used to determine the relationship between the five components of DuPont analysis and return on equity. The results show that return on equity of all six leading automobile companies have declined drastically during 2015-2019. The results revealed that calculation of ROE is not relevant at all situations for taking rational investment decisions. In order to increase the rate of taking better economic decisions the results of extended DuPont approach can be compared across companies within an industry, between industries, or within a firm itself.

Keywords: DuPont analysis, Financial Performance, Return on Equity, Return on Asset, Automobile companies

Introduction

Financial performance is an important aspect which influences the long-term stability, profitability and liquidity of an organisation (Bhagyalakshmi. K and Saraswathi. S, 2019) [2]. The financial performance measured in terms of profitability of the firm is very prominent for rational investors to take economic decisions (Gopi. K.T 2018) [4]. The DuPont model was propounded by F. Donaldson Brown when he was assigned to clean up finances in General Motors and has ever since been an important model for financial analysis (Geethalakshmi. A and Jothi. K, 2016) [3]. There are two forms of the DuPont Equation; the first examines return on assets, while the second examines return on equity (Butalal C. Ajmera, 2012). The return on equity measures the profit generated with the money that shareholders have invested (Deepak. R and Kavitha. D, 2018). In recent years, automobile sector emerged as the key sector of the country. The Global ranking of Indian automobile industry is the second largest two wheeler market in the world, fourth largest in commercial vehicle market and eleventh largest passenger car market and expected to become the third largest automobile market in the world (Kanagavalli. G and Saroja Devi. R, 2018) [5]. Hence the study is aimed at analysing financial performance of select automobile companies in India.

Review of Literature

The extended DuPont approach is a better measure of financial performance of firms. In order to increase the rate of taking better economic decisions the results of extended DuPont approach can be compared across companies within an industry, between industries or within a firm itself (Gopi. K.T,

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2018) [4] According to Nihar Kiran Nanavati (2013) breaking down return on equity into its components gives insights into the drivers of return on equity (Vasile Burja and Radu Marginean,2014) [7] Return on equity indicates how effectively a company is using its shareholders fund and return on asset implies the efficiency of the company in using its assets whereas the return on investment explain the efficiency of an investment (Govindraj and Shivappa, 2015) It considers operating, investing, financing and tax- related decisions (Geethalakshmi. A and Jothi K, 2016) [3].

According to Deepak. R and Kavitha. D (2018) when a firm uses very high levels of debt it creates a negative impact on the return on equity (Mihaela and Claudia, 2011) The DuPont analysis evaluates a company's return on equity by dividing into three parts i.e. profit margin, total assets turnover and equity multiplier (Pravin Narayan Mahamuni and Anil Arun Poman, 2019) [6]. According to Amit Joshi and Saurabh Joshi (2017) [1] DuPont model is useful when fundamental analysis of various business concerns becomes a complex exercise or where quick decision making is required,

Statement of the Problem

The strengths and weaknesses of any business is understood by evaluating financial performance. It is necessary to understand the risk and rewards and to find out what changes to make, to achieve higher returns and if possible, with less risk. The purpose of performance evaluation is to analyse financial results of the past and current period so that a company's performance and financial position can be measured and evaluated. Based on the evaluation, the future risks and potential can be estimated. It is useful for making intra firm and inter-firm comparison of profitability of a firm within the same industry. It indicates how well the firm has used the resources of owners. However, the prudent way is to not only to consider the return on equity, but to look for what derives the return on equity which is answered by DuPont analysis. The automobile

sector is one of the most important sectors in India and hence study is carried with the financial results of select companies.

Objectives of the study

The objectives of the study are

- To analyse the profitability of select automobile companies using DuPont model
- To examine return on asset and return on equity of the select automobile companies using DuPont model and
- To study the impact of return on assets and equity multiplier on return on equity.

Hypotheses of the study

- Ho_1: There is no significant difference exists in the financial performance of selected automobile companies with reference to return on equity.
- Ho_2: There is no significant difference exists in the financial performance of selected automobile companies with reference to return on asset.

Limitations of the study

- The study is based on secondary data obtained from online database and depends entirely on the accuracy of such data. DuPont analysis is confined to the fundamental analysis of the companies. Market performance of the company's stock remains indifferent from the outcomes of DuPont model.

Materials and Methods

Sampling method and data source

Census method of sampling was adopted to select the automobile companies which were included in NIFTY50 namely Bajaj Auto Limited, Eicher Motors Limited, Hero MotoCorp Limited, Mahindra and Mahindra Limited, Maruti Suzuki Limited and Tata Motors Limited. The study was conducted with the financial results of five years from 2014-2015 to 2018-2019. The secondary data for the

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study have been obtained from the annual reports of the automobile companies, journals, books, and online data source. The data collected were analysed using DuPont analysis with financial ratios, descriptive statistics and multiple regression analysis.

DuPont Analysis

Du Pont system is based on the financial statements Income statement and Balance sheet.

Three step DuPont model

The original DuPont model is expressed in three steps as follows:

Return on Equity (ROE)

Return on Equity represents net profit after taxes divided by shareholders equity.

ROE= Profit Margin× Total Assets Turnover× Equity Multiplier

Net Profit Margin

Net Profit is derived by deducting operating expenses from the gross profit.

Net Profit Margin= Profit after tax/ Sales

It is the overall performance of the firm's ability to convert each rupee sales into net profit by conducting manufacturing, administering and selling the products in a most efficient manner.

Total Assets Turnover

Total Assets Turnover is an efficiency ratio that measures a firm's ability to generate sales from its assets.

Total Assets Turnover= Sales/ Total Assets

Equity Multiplier

The Equity Multiplier is a financial leverage ratio. It shows the extent of firm's assets that are financed by its shareholders.

Equity Multiplier= Total Assets/Equity Capital

The Three-step DuPont Model can be used to check whether increase return on equity is resulted because of improving its profitability, efficient use of its assets, or by infusing additional leverage. However, by adding on leverage will subsequently reach a point where the cost of debt would decrease profit margins and decrease asset turnover. This "limitation" in the original model led to the development of an expanded DuPont analysis with five steps. The five steps model breaks down the net profit margin to assess the impact of high cost of borrowing pertaining to increased leverage. For the companies with high cost of borrowing, its interest expense on increased debt could offset the positive effects of increased leverage. Moreover, interest expenses for most companies are tax-deductible, so the extended model considers interest charges and the company's tax burden (Nihar Kiran Nanavati, 2013)

The extended five-step DuPont Model breaks return on equity down into five components:

a) Pre-interest pre-tax profit margin = Earnings before interest and taxes (EBIT) ÷ Sales
b) Asset turnover = Sales ÷ Total assets
c) Interest burden = (EBIT – Interest expense) ÷ EBIT
d) Tax efficiency = [1 – (Tax expense ÷ (EBIT – Interest expense))] and
e) Leverage ratio (equity multiplier) = Total Assets ÷ Shareholders' equity.

The net profit arrived by multiplying, the pre-interest pre-tax margin, the interest burden ratio, and the tax efficiency ratio and multiplying all five ratios together gives return on equity.

Pre-interest pre-tax profit margin: It reflects the standalone profitability of a company's operations.

Asset Turnover: It denotes the amount of sales generated by a company by deploying its asset.

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Interest Burden: It is the proportion of earnings before interest and taxes (EBIT) which are used to cover interest expense.

Tax efficiency: 100 – percentage of tax expenses with respect to Earning before Tax.

Results and Discussion

The results of data analysis is presented in the following sections:

Return on Equity of selected companies

The components of return of equity of select companies namely Pre-interest pre-tax profit margin, Asset turnover, Interest burden, Tax efficiency, and Equity multiplier were computed for five selected companies in the automobile sector. The results are presented in table 1. The table 1 shows that the pre-interest pre-tax margin mean value. On comparing with mean value, the pre-interest pre-tax margin was around the mean in all the years except 2014-15. The high standard deviation signifies variation in earnings during the period under study. The equity multiplier and return on equity showed that the company financial performance was not consistently over period of time. The correlation coefficient signifies that the return on equity to larger extent is influenced by asset turnover and followed by equity multiplier, interest burden, pre-interest pre-tax margin and tax efficiency.

It is observed from table 2 that the mean value of pre-interest pre-tax margin resulted with a mean value and standard deviation. The mean value of asset turnover, the interest burden, tax efficiency, equity multiplier and return on equity results shows that the company performance was very volatile and it reflects that the assets were not deployed fully in generating returns. The correlation coefficient brings out the fact that the return on equity depends to larger extent on asset turnover followed by equity multiplier, tax efficiency, interest burden and pre-interest pre-tax margin.

From table 3,it is observed that the mean value of pre-interest pre-tax margin ,asset turnover, interest burden, tax efficiency, equity multiplier and return on equity showed that the company's financial performance was not stable during the study period and it reflect on improper use of resources in generating returns. The correlation coefficient reveals that the ROE depends to larger extent on interest burden followed by asset turnover, tax efficiency, equity multiplier and pre-interest pre-tax margin.

From table 4, it is observed that the mean pre-interest pre-tax margin, asset turnover, interest burden, tax efficiency, equity multiplier and return on equity showed that the company performance was very volatile. The correlation coefficient indicate that the return on equity depends to larger extent on interest burden followed by tax efficiency, equity multiplier, pre-interest pre-tax margin and asset turnover

It is observed from table 5 that the mean value of pre-interest pre-tax margin, asset turnover, interest burden, tax efficiency, equity multiplier and return on equity showed that the company performance was very volatile and so consistency in performance. The correlation coefficient shows that the ROE depends to larger extent on equity multiplier followed by pre-interest pre-tax margin, tax efficiency, asset turnover and interest burden.

The table 6 depicts that the mean value of pre-interest pre-tax margin, asset turnover, interest burden, tax efficiency, equity multiplier and return on equity showed that the company performance was very volatile. The correlation coefficient reflects the return on equity depends to larger extent on tax efficiency followed by asset turnover, pre-interest pre-tax margin, interest burden and equity multiplier.

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Table-1 Components of Return on Equity of Bajaj Auto Limited and Descriptive statistics

Year	Pre-Interest pre-tax margin (in per cent)	Asset Turnover (in times)	Interest Burden (in percent)	Tax Efficiency (in per cent)	Equity Multiplier (in times)	Return on Equity (in percent)
2014-15	20.17	2.00	99.85	70.79	1.39	39.63
2015-16	25.92	1.70	99.98	72.36	1.19	37.93
2016-17	25.87	1.27	99.97	73.21	1.17	28.13
2017-18	24.18	1.31	99.98	71.82	1.19	27.07
2018-19	23.04	1.39	99.93	70.88	1.20	27.22
Mean	23.84	1.53	99.94	71.81	1.23	31.99
Standard Deviation	2.39	0.31	0.05	1.02	0.09	6.23
Correlation	-0.36	0.95	-0.52	-0.22	0.68	-

Source: Computed data

Table-2: Components of Return on Equity for Eicher Motors Limited and Descriptive statistics

Year	Pre-Interest Pre-tax Margin (in per cent)	Asset Turnover (in times)	Interest Burden (in percent)	Tax Efficiency (in per cent)	Equity Multiplier (in times)	Return on Equity (in percent)
2014-15	28.04	2.46	98.85	52.98	1.30	46.96
2015-16	32.19	2.62	99.89	72.91	1.32	81.08
2016-17	34.57	1.76	99.85	70.35	1.28	54.70
2017-18	32.07	1.64	99.81	67.36	1.31	46.32
2018-19	35.06	1.36	99.79	68.57	1.22	39.80
Mean	32.39	1.97	99.64	66.43	1.29	53.77
Standard Deviation	2.78	0.54	0.44	7.80	0.04	16.15
Correlation	-0.05	0.72	0.32	0.47	0.61	-

Source: Computed data

Table-3: Components of Return on Equity for Hero MotoCorp Limited and Descriptive statistics

Years	Pre-Interest Pre-tax Margin (in per cent)	Asset Turnover (in times)	Interest Burden (in percent)	Tax Efficiency (in per cent)	Equity Multiplier (in times)	Return on Equity (in percent)
2014-15	14.06	4.22	99.69	75.61	1.59	71.11
2015-16	16.92	3.90	99.69	73.57	1.38	66.79
2016-17	18.04	2.82	99.47	73.82	1.37	51.18
2017-18	17.99	2.72	99.47	72.79	1.35	47.83
2018-19	16.65	2.61	99.34	70.57	1.31	39.91
Mean	16.73	3.25	99.53	73.27	1.40	55.36
Standard Deviation	1.62	0.75	0.15	1.83	0.11	13.15
Correlation	-0.63	0.97	0.99	0.87	0.81	-

Source: Computed data

Table-4: Components of Return on Equity for Mahindra and Mahindra Limited and Descriptive statistics

Year	Pre-Interest Pre-tax Margin (in per cent)	Asset Turnover (in times)	Interest Burden (in percent)	Tax Efficiency (per cent)	Equity Multiplier (in times)	Return on Equity (in percent)
2014-15	13.76	1.78	41.08	21.87	1.55	3.41
2015-16	13.57	1.68	39.27	2.774	1.57	3.89
2016-17	14.54	1.49	43.04	16.58	1.53	2.36
2017-18	15.82	1.47	48.23	36.26	1.56	6.34
2018-19	15.46	1.46	39.43	12.68	1.56	1.76
Mean	14.63	1.58	42.21	18.03	1.55	3.55
Standard Deviation	0.99	0.14	3.69	12.35	0.01	1.77
Correlation	0.24	0.02	0.76	0.64	0.38	-

Source: Computed data

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Table-5: Components of Return on Equity for Maruti Suzuki Limited and Descriptive statistics

Year	Pre-Interest Pre-tax Margin (in per cent)	Asset Turnover (in times)	Interest Burden (in percent)	Tax Efficiency (in per cent)	Equity Multiplier (in times)	Return on Equity (in percent)
2014-15	15.09	2.09	97.11	83.82	1.35	34.66
2015-16	17.97	1.92	99.21	79.65	1.35	36.81
2016-17	18.58	1.84	99.29	79.16	1.34	36.01
2017-18	17.67	1.91	97.55	76.09	1.34	33.57
2018-19	15.73	1.86	99.44	77.90	1.28	29.01
Mean	17.01	1.92	98.52	79.32	1.33	34.01
Standard Deviation	1.51	0.09	1.10	2.86	0.03	3.06
Correlation	0.58	0.21	-0.12	0.34	0.93	-

Source- Computed data

Table- 6: Components of Return on Equity for Tata Motors Limited and Descriptive statistics

Year	Pre-Interest Pre-tax Margin (in percent)	Asset Turnover (in times)	Interest Burden (in percent)	Tax Efficiency (in percent)	Equity Multiplier (in times)	Return on Equity (in percent)
2014-15	9.03	1.14	58.33	34.08	1.67	34.17
2015-16	5.09	1.11	29.49	3.88	1.73	11.18
2016-17	6.65	1.61	59.88	85.4	1.76	96.36
2017-18	10.48	1.74	75.95	55.75	1.89	14.59
2018-19	4.05	1.12	81.60	26.01	1.77	17.04
Mean	7.06	1.34	61.05	41.02	1.76	34.67
Standard Deviation	2.67	0.30	20.30	30.98	0.08	35.61
Correlation	.012	.413	.003	.812	-.178	-

Source: Computed data

Determinants of Return on Assets of select Automobile Companies

Return on Assets measures the profitability of the firm in relation to assets utilised in the firm. The effect of independent variables namely Net Profit Margin, Total Assets Turnover and Equity Multiplier on the dependent variable return on asset tested through the following hypothesis:

Ho$_1$: There is no significant impact on the financial performance of select companies with reference to Return on Assets.
Ha$_1$: There is significant impact on the financial performance of select automobile companies with reference to Return on Assets.
The multiple regression analysis was used to determine the effect of independent variables on the dependent variable. The result of test of ANOVA proved that the overall model is significant at 5 percent level, with respect to all the selected companies which indicates that the model applied can statistically predict the outcome variable. The determinants of Return on Equity of the select automobile companies were presented in the table 7.

The table 7 revealed that the R Square value impacted 99.5 percent of the observed variability in Return on Assets is explained by the independent variable Equity Multiplier, Total Assets Turnover and Net Profit Margin. The coefficient value of Net Profit Margin, Total Asset Turnover and Equity Multiplier are found to have a strong favourable impact on profitability as measured by Return on Assets. There is significant difference exists in the financial performance with respect to Return on Assets.

The model summary of Eicher Motors Limited reveals that the R Square value

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explains 99.8 percent of the observed variability in Return on Assets was described by the independent variable of by their coefficients Equity Multiplier, Total Asset Turnover and Net Profit Margin. There was no significant difference exists in the financial performance with respect to Return on Asset. As per Hero MotoCorp Limited the Model summary shows that the R Square value shows 98.7 percent of the observed variability in Return on Asset was explained by the independent variable by their coefficient Equity Multiplier, Total Asset Turnover and Net Profit Margin. This proved that there is significant difference exists in the financial performance with respect to Return on Asset.

In case of Mahindra and Mahindra Limited R Square value indicates 99.9 percent of the observed variability in Return on Asset was explained by the independent variable Equity Multiplier, Total Asset Turnover and Net Profit Margin. There is significant difference exists in the financial performance of selected companies with respect to Return on Asset.

According to Maruti Suzuki Limited, the R Square value indicates 99.9 percent of the observed variability in Return on Assets was explained by the independent variable by their coefficients Equity Multiplier, Total Asset Turnover and Net Profit Margin. There is significant difference exists in the financial performance with respect to Return on Asset.

In case of Tata Motors Limited the R Square value indicates 99.3 percent of the observed variability in Return on Assets was explained by the independent variable with the coefficient Equity Multiplier, Total Asset Turnover and Net Profit Margin. There is no significant difference exists in the financial performance with respect to Return on Asset.

Table-7: Determinants of Return on Asset of select Automobile Companies

Name of the company	Model	Unstandardized coefficients		T	sig	R	R^2
		B	Std. Error				
Bajaj Auto Limited	Constant	-5.429	2.664	-2.038	.290		
	Net Profit Margin	.899	.067	13.387	.047		
	Total Asset Turnover	17.500	.456	38.362	.017		
	Equity Multiplier	-8.832	1.636	-5.397	.117	.997	.995
Eicher Motors Limited	Constant	-63.594	22.123	-2.875	.213		
	Net Profit Margin	2.167	.303	7.154	.088		
	Total Asset Turnover	19.657	1.168	16.830	.038		
	Equity Multiplier	16.115	16.152	.976	.508	.999	.998
Hero MotoCorp Limited	Constant	-15.066	.224	-67.271	.009		
	Net Profit Margin	3.007	.008	359.424	.002		
	Total Asset Turnover	11.227	.017	648.137	.001		
	Equity Multiplier	-13.743	.137	-100.185	.006	.993	.987
Mahindra and Mahindra Limited	Constant	-34.794	.246	-141.368	.005		
	Net Profit Margin	2.454	.006	415.694	.002		
	Total Asset Turnover	13.330	.020	683.011	.001		
	Equity Multiplier	8.814	.160	55.117	.012	1.000	.999
Maruti Suzuki Limited	Constant	-14.836	1.114	-13.321	.048		
	Net Profit Margin	1.668	.103	16.262	.039		
	Total Asset Turnover	4.775	1.461	3.268	.189		
	Equity Multiplier	5.949	2.756	2.159	.276	.999	.999
Tata Motors Limited	Constant	8.199	9.818	.835	.557		
	Net Profit Margin	1.065	.135	7.891	.080		
	Total Asset Turnover	.788	1.247	.632	.641		
	Equity Multiplier	-5.576	6.330	-.881	.540	.997	.993

Source: Computed data

3.3 Determinants of Return on Equity of select Automobile Companies

The Return on Equity measures a firm's profitability by considering the profit generated with the money that shareholders have invested.

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The higher a company's return on equity, the better management is at employing investor's capital to generate profits. The effect of independent variables namely Net Profit Margin, Total Assets Turnover and Equity Multiplier on the dependent variable return on Equity tested through the following hypothesis:

Ho_2: There is no significant impact on the financial performance of select automobile companies with reference to Return on Equity.

Ha_2: There is significant impact on the financial performance of select automobile companies with reference to Return on Equity.

The multiple regression analysis was used to determine the effect. The result of test of ANOVA proved that the overall model is significant at 5 percent level with respect to all the selected companies. The determinants of Return on Equity of the select automobile companies were presented in table 8.

The table 8 depicts that the Bajaj Auto Limited, as indicated by the R Square 99.8 percent of the observed variability in Return on Equity was explained by the independent variable with the coefficient of Total Assets Turnover and Net Profit Margin.

In case of Eicher Motors Limited, the R Square value indicates 99.7 percent of the observed variability in Return on Equity was explained by Total Asset Turnover. As per Hero MotoCorp Limited the R Square value indicates 99.8 percent of the observed variability in Return on Equity was explained by coefficients Total Asset Turnover and Net Profit Margin.

The results of Mahindra and Mahindra Limited reveals the R Square with 98.2 percent of the observed variability in Return on Equity was explained by Equity Multiplier, Total Asset Turnover and Net Profit Margin.

According to Maruti Suzuki Limited, R Square value indicates 99.5 percent of the observed variability in Return on Equity was explained by the Net Profit Margin.

In case of Tata Motors Limited the R Square value indicates that 90.1 percent of the observed variability in Return on Equity, explained by the coefficient of independent variables Equity Multiplier, Total Asset Turnover and Net Profit Margin.

It is inferred that during the study period, the explanatory variables namely Net Profit Margin (except Eicher Motors Limited) and Total Asset Turnover (except Maruti Suzuki Limited) were resulted as the dominant variables in all the selected companies. The return on equity of these companies were mainly caused by the profitability factors and efficient utilisation of assets. The Equity multiplier was used effectively by fixed interest bearing securities used by Mahindra and Mahindra Limited. All the three dimensions of determinants of the Return on Equity namely profitability, efficient asset management and financial leverage were employed in a beneficial way in Mahindra and Mahindra Limited during the study period.

Table-8: Determinants of Return on Equity of select Automobile Companies

Name of the company	Model	Unstandardized coefficients		T	Sig	R	R^2
		B	Std. Error				
Bajaj Auto Limited	Constant	-30.440	4.903	-6.209	.102		
	Net Profit Margin	1.415	.108	13.141	.048		
	Total Asset Turnover	21.383	.491	43.542	.015	.999	.998
	Equity Multiplier	3.915	3.143	1.245	.431		
Eicher Motors Limited	Constant	-118.799	39.278	-3.025	.203		
	Net Profit Margin	2.803	.538	5.208	.121		
	Total Asset Turnover	25.951	2.074	12.515	.051	.999	.997
	Equity Multiplier	48.411	29.316	1.651	.347		
	Constant	-66.257	3.243	-20.429	.031		

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Hero MotoCorp Limited	Net Profit Margin	3.962	.121	32.696	.019	.999	.998
	Total Asset Turnover	15.456	.251	61.617	.010		
	Equity Multiplier	15.603	1.987	7.854	.081		
Mahindra and Mahindra Limited	Constant	-34.794	.246	-141.368	.005	.991	.982
	Net Profit Margin	2.454	.006	415.694	.002		
	Total Asset Turnover	13.330	.020	683.011	.001		
	Equity Multiplier	8.814	.160	55.117	.012		
Maruti Suzuki Limited	Constant	-40.685	3.405	-11.950	.053	.993	.995
	Net Profit Margin	2.157	.313	6.880	.042		
	Total Asset Turnover	5.163	4.467	1.156	.454		
	Equity Multiplier	25.814	8.425	3.064	.201		
Tata Motors Limited	Constant	343.113	443.791	.773	.581	.949	.901
	Net Profit Margin	-7.830	6.100	-1.284	.421		
	Total Asset Turnover	145.796	56.347	2.587	.235		
	Equity Multiplier	265.811	286.111	-.929	.523		

Source: Computed data

Implications of the study

As the Total Asset Turnover measures the ability of the companies to efficiently produce sales, all the companies need to focus on efficient use of assets employed in business. The companies need to focus on increasing Return on Equity because it will help the companies to increase profits without adding new equity into the business.

The Equity Multiplier of the companies showed a decreasing trend and were not relying more on borrowed loan to finance its asset. As the equity multiplier were not significant so it should take effort to use the fixed interest-bearing securities in capital structure to derive the advantage of financial leverage and thereby the companies can increase its return on equity by increasing equity multiplier. The Net Profit Margin of Eicher Motors Limited, Maruti Suzuki Limited and Tata Motors Limited were not significant so the profit earning capacity of the company should be improved.

Conclusion

DuPont Analysis of the selected companies showed that during the study period, the Return on Equity were mainly caused by the profitability factors and efficient utilisation of assets. All the three dimensions of determinants of the Return on Equity namely profitability, efficient asset management and financial leverage were employed in a beneficial way in Mahindra and Mahindra Limited during the study period. Through DuPont analysis the fundamental financial performance of the select companies were measured effectively.

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