

THE RELATIONSHIP BETWEEN PROFITABILITY AND ASSET MANAGEMENT: A STUDY ON SELECTED INDIAN AUTOMOBILE COMPANIES.

Atul Kumar Paul
Assistant Professor,
Karimganj College, Assam, India.

ABSTRACT:

The automobile sector occupies an important place in the fabric of Indian Economy. It is a leader in product and process technologies in the manufacturing sector. In this study, data of 7 companies which are taken from Indian Automobile Industries between the years 2014-2019, has been used. "Return on Capital Employed"(ROCE) has been used as indicators of company's profitability(dependent variable) and fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio have been used as independent variable. Multiple regression analysis has been used in empirical analyses. The present study analyzes the relationship between profitability and asset management of automobile industry in India during the study period. The result of analysis indicates the ROCE has positive relationship with FATR, ITR and it has significant association while ROCE has insignificant negative relationship with DTR.

Key words – Asset Management, Automobile Industries, Profit, Capital Employed.

INTRODUCTION:

The automobile industry is one of the most important industries in India. It is also one of the largest industries in the global market. The Indian auto industry became the 5th largest auto market in 2019 with turnover reaching to 3.81 million units, while it was decreased by 10% in the first half of 2020. The two Wheelers segment dominates the market in terms of volume owing to a growing middle class and a young population. Automobile exports grew 14.5 % during the financial year 2019. It is expected to grow at a CAGR (Compound annual growth rate) of 3.05 % during 2016-2026. Moreover, various measures by the Government of India and the major automobile players in the Indian market are expected to make India a leader in the two-wheeler and four wheeler market in the world by 2020.

Asset Management has two common definitions, one is advisory services and another is corporate finance. At first, by coordinating and overseeing a client's financial portfolio—e.g., investment, an advisory services company provides asset management. In corporate finance, asset management is the system of ensuring that a company's assets (tangible and intangible) are maintained and put to their highest and best use in systematic way.

Profitability is the earning capacity of a business firm. The primary objective of a business undertaking is to earn profit. Profitability is a primary factor on which managerial decisions are based. From this view, point, "Profitability" analysis is considered more important than analysis of "profit" itself. Therefore; profitability has more managerial uses than profit. These help in decision making and internal accounting in the fields of sales, marketing and product management for a business..

Asset Management is the integration of management, financial, economic and other practices, which are applied to company's assets (tangible and intangible), since; it has to provide the required level of service in the most cost effective way.

Asset management is important so it helps a company monitor and manage their assets using a systemized strategy. If it is managed effectively then the benefits include improvements to productivity and efficiency which places a business in a better position to strengthen their return on investment.

REVIEWS OF LITERATURE:

Many researchers have studied the relationship profitability and asset management from different views and in different environments. The following study is given bellow

Shelly Midesia Hasan Basri & M. Shabri Abd. Majid (2016), in their article, “The Effects of Asset Management and Profitability on Stock Returns: A Comparative Study between Conventional and Islamic Stock Markets in Indonesia”. The objective of the study has to study the effect of asset management and profitability both stock returns in Indonesia. The independent t-test and panel multivariate regression analysis is used. The finding shows that there was no difference in stock returns between the conventional and Islamic stock markets during the study period.

Haitham Nobanee & Jaya Abraham (2015), in their article, has considered, “Current Assets Management of Small Enterprises”. The sample is taken from 5802 non financial firms listed NYSE, ASE, NASDAQ Stock Market and others for a period of fourteen years i.e. 1990 to 2004. The main purpose of this article is to study the relationship between a firm’s net trade cycle, its size and liquidity. To serve the objective, Generalized Method of Moment Dynamic Panel-Data System Estimation with Robust Standard Errors is examined. The finding shows that the negative significant association between net trade cycle, since a comprehensive measure of efficiency in working capital management and liquidity for small business during the study period.

Dr.Abbasali Puraghajan1, Ali Akbar Ramzani, IssaEslami Bin(2014), in this paper “Effects of Aggressive Working Capital on the Performance of Listed Companies in Tehran Stock Exchange”. The main objective of the study is that the effect of aggressive working capital on the profitability of the selected company from 2007 to 2011. To serve the objective, Panel data analysis and Multiple Linear Regression is used. The results of the study indicate that the aggressive strategy in assets and current liabilities raises return on assets and risk return on assets. The aggressive strategy in assets and current liabilities also raises return on equity and risk return on equity.

Agyemang Badu Ebenezer & Michael Kwame Asiedu(2013), in their article, “The relationship between Working Capital Management and Profitability of listed Manufacturing Companies in Ghana”. The data of study were taken from the annual financial statements of the manufacturing companies listed on the Ghana Stock Exchange (GSE) from the period 2007 to 2011. The study explored that, the major component of working capital management such as inventory days; account payable and cash conversion cycle have influence on the profitability of manufacturing companies.

OBJECTIVES OF THE STUDY:

The following are the main objectives of the study area:

- To give the brief description of asset management and how to develop the relationship between the profitability and asset management.
- To analysis the relationship between profitability and asset management of Automobile Industry under consideration the study.
- To find out the impact of asset management on profitability the company.

RESEARCH METHODOLOGY:

Data Collection:

The present study used secondary data for the analysis. The data were collected from the annual reports of the selected companies from 2013-14 to 2018-19. The financial statements which are made up of income statements and balance sheets of the sample companies were the main sources of data for the study. These were obtained from the web sites of the respective companies.

Sampling Design:

The population of this study is based on listed companies in the Bombay Stock Exchange of India (BSE). The BSE has 372 well traded companies representing 18 business sectors as at 12 September 2019, with Market Capitalization. The selection process of the companies is used on the basis of purposive sampling method. The sample of this study composed of seven companies listed in the

Automobile industries (on the basis of Volume) where there are 33 companies listed in the Automobile sector. The sample period was six years from 2013-14 to 2018-19. For analyzing the data, the techniques of financial statement analysis as well as statistical tools like ratio analysis, correlation, simple regression analysis, t-test by using SPSS. The Return on Capital Employed is used as a dependent variable while Asset Management ratios like FATR, ITR, and DTR are used as independent variables

From this sector the following seven listed Indian Automobile companies were selected to carry out the research;

1. Tata Motors
2. Ashok Leyland
3. Motherson Sumi System
4. Escorts
5. Mahindra & Mahindra
6. TVS.Motor Co Ltd
7. Maruti Suzuki India Ltd.

ANALYSIS OF DATA:

Asset management is the procedure of increasing the assets of the company to provide the best returns to the share holder. Businesses have a wide range of fixed assets and current assets. It is important for a business to be able to manage its assets, and use them to get the maximum possible returns.

Efficiency or turnover ratios are concerned with measuring the efficiency in assets management. Efficiency implies effective utilization of available resources. The term 'turnover' refers to the utilization of an asset in the process of business activity. It should be attempted to find out the efficient utilization of asset by relating to sales. In general way, it should be become a speedy disposal of finished goods stock: effective use of working capital: quick collections of sundry debtors and similar efficient operations have a positive and healthy impact on the success and the profitability of the company. The following reasons are given bellow why asset management is important for maximizing the profitability of the company.

1. Asset management allows the organization to keep track of all their assets. It can tell about the located, changes and used, so those, the asset recovery can ensure and lead to better returns for the company.
2. The company can easily create an inventory report in an accurate and effective manner from different location by asset management.
3. Asset management can also be used to make sure that the amortization rates are accurate and it will ensure the accuracy regarding the financial statement of the company.
4. Asset recovery is automatically reflected in an asset management system. In this system, once assets are sold, the said assets will be removed from the recorded boohs of accounts.
5. Asset management allows an organization to understand the capabilities of its assets, and how they can be operated in the most effective manner.
6. Asset management also includes the management of the risks connected with the use and ownership of the assets.
7. Proper asset management can help optimize the operations that include the planning, resources use, and in the implementation of the management program.

DATA ANALYSIS:

Return on Capital Employed:

Return on capital employed ratio is based on the capital employed concept of investment. It is a ratio that represents the efficiency and profitability of a company's capital investment. Shareholders fund is the total of equity share capital, total reserve, equity share warrants, equity application money. This profit after tax is first available to provide for Reserve, then the preference dividend and at the last for equity dividend. Thus return on shareholders' fund shows the yield on it. It should always be greater than the rate at which the company borrows. Other than any increase in borrowing will reduce shareholders earnings.

$$\text{Return on Capital Employed} = \frac{\text{Net Profit (after Tax)}}{\text{Equity Share Capital + Resurve \& Surplus}} \times 100$$

Fixed Assets Turnover Ratio:

This ratio establishes a relationship between Net Sales and Net Assets (Net Block). The efficiency in utilizing the firm's fixed assets is reflected in this ratio. There is no "rule of thumb" or standard for Assets turnover ratio. A higher turnover ratio indicates the more efficient the management in utilizing the assets. It is normally preferred more than one ratio.

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales (Cost of goods sold)}}{\text{Net Assets (Net Block)}}$$

Inventory Turnover Ratio:

This ratio establishes a relationship between Net Sales (Cost of Goods Sold) and average inventory (Closing stock). The objective of computing this ratio is to ascertain the efficiency with which the inventory is utilized. It represents the speed with which inventory is converted into sales. Normally, a high ratio reveals efficient performance, since an improvement in ratio shows that either the same volume of sales has been maintained with a lower investment in stocks, or the volume of sales has increased without increase in the volume of stocks. This ratio is generally expressed as number of times.

$$\text{Inventory Turnover Ratio} = \frac{\text{Net Sales (Cost of goods sold)}}{\text{Closing Stock (Average Inventory)}}$$

Debtors Turnover Ratio:

This ratio establishes a relationship between net sales (Cost of Goods Sold) and average debtor. The objective of computing this ratio is to determine the efficiency with which the trade receivables are being managed (realized). It indicates the speed with which the amount due is being realized from debtors. A high ratio indicates, short collection period which means prompt payment by debtors. A low ratio indicates, longer collection period which means delayed payment by debtors. It is generally expressed as number of times.

$$\text{Debtor Turnover Ratio} = \frac{\text{Net Sales (Cost of goods sold)}}{\text{Closing Debtors (Average Debtors)}}$$

Table 1 Return on Capital Employed, Fixed Asset Turnover Ratio, Inventory Turnover Ratio, and Debtor Turnover Ratio of selected Automobile Company under study (Figure in number)

Year	ROCE	FAT	ITR	DTR
2013-14	0.148	4.55	15.39	17.82
2014-15	0.138	4.47	15.31	20.84
2015-16	0.113	3.85	12.24	21.39
2016-17	0.117	3.56	12.60	20.76
2017-18	0.096	3.62	11.92	21.47
2018-19	0.119	3.53	13.10	19.16

Table-1.1. Return on Capital Employed on Fixed Assets Turnover Ratio of selected Automobile Company.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.815 ^a	.663	.579	.011452

a. Predictors: (Constant), Fixed Asset Turnover

The value of R (.815) represents the simple correlation, which indicates a high degree of correlation. The R² (.663) value indicates as to what an extent the total variation in the dependent variable that is explained by the independent variable. Remaining 33.7% of the variations in the models were related to other variable which were not portrayed in the models.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	7.886	.048 ^b
	Residual	.001	4	.000		
	Total	.002	5			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Fixed Asset Turnover

It shows that the model statistically significant relationship between the ROCE and FAT which is the p-value less than .05.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Return on Capital Employed	-.001	.044		-.024	.982
	Fixed Asset Turnover	.031	.011	.815	2.808	.048

a. Dependent Variable: Return on Capital Employed

From the above table, regression equation of return on capital employed (ROCE) on fixed assets turnover ratio (FATR)

$$ROCE = -0.001 + 0.031(FATR)$$

Here, d.f. = n-2 = 6-2=4, table value of t at 5% level with 4d.f. =2.776. The computed value of t(2.808) > table value of t at 5% level(2.776). When the FATR of selected seven Automobile Company increased by one unit, its ROCE increased by .031 units which was found to be statistically significant at 5% level.

Table-1.2. Return on Capital Employed on Inventory Turnover Ratio of selected Automobile Company.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.918 ^a	.842	.803	.007838

a. Predictors: (Constant), Stock turnover Ratio

This Table provides the R and R² values. A strong positive correlation of R= 0.918 was observed between ROCE and Stock Turnover Ratio. The R² value indicates as to what an extent the total variation in the dependent variable, stock turnover ratio can be explained by the independent variable. In this case, 84.2% can be explained, which is very large.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	21.377	.010 ^b
	Residual	.000	4	.000		
	Total	.002	5			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Stock turnover Ratio

This Table indicates that the regression model predicts the dependent variable significantly well. Here, p value which is less than 0.01, which indicates that the overall model statistically significant.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Return on Capital Employed	-.020	.031		-.664	.543
	Stock turnover Ratio	.011	.002	.918	4.624	.010

a. Dependent Variable: Return on Capital Employed

It is cleared from the above table, regression equation of Return on capital employed (ROCE) on Inventory turnover ratio (ITR)
 $ROCE = -.020 + .011(ITR)$

Here, Computed value of t (4.624) > Table Value of t at 1% level (2.776). For one unit increase in ITR, the ROCE of the company stepped up by .011 units which were found to be statistically significant at 1% level.

Table-1.3. Return on Capital Employed on Debtor Turnover Ratio of selected Automobile Company.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.771 ^a	.595	.493	.012567

a. Predictors: (Constant), Debtor Turnover Ratio

The value of R (.771) represents the simple correlation, which indicates a high degree of correlation. The R² (.595) value indicates as to what an extent the total variation in the dependent variable that is explained by the independent variable. Remaining 41.5% of the variations in the models were related to other variable which were not portrayed in the models.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	1	.001	5.870	.073 ^b
	Residual	.001	4	.000		
	Total	.002	5			

a. Dependent Variable: Return on Capital Employed

b. Predictors: (Constant), Debtor Turnover Ratio

It shows that the model statistically insignificant relationship between the ROCE and DTR which is the p-value greater than .05.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	Return on Capital Employed	.311	.079	3.953	.017
	Debtor Turnover Ratio	-.009	.004	-2.423	.073

a. Dependent Variable: Return on Capital Employed

On observation, regression equation of Return on capital employed (ROCE) on Debtors turnover ratio (DTR)
 $ROCE = .311 - .009 (DTR)$

Here, the computed value of t (-2.423) is less than the table value of t at 5% level (2.776). When the DTR of the company is increased by one unit, its ROCE is decreased by .009 units which were found to be statistically insignificant at 5% level.

FINDINGS & INTERPRETATION:

Following are the important findings of the study

1. It is observed that the computed value of ROCE is greater than the table value of FATR in (table-1) at 5% significant level. It implies that the fixed assets management of the company made a notable contribution towards enhancing its profitability during the study period.
2. From the Table-2, it is also the computed value of ROCE is greater than the table value of (ITR) at 1% level of significance. It indicates that the inventory management of the company have to make any significant impact on the increase in its overall profitability during the period under study.
3. In table-3, the computed value of ROCE i.e. t(-2.423) is less than the table value of DTR i.e.t(2.776) at 5% level of insignificant. It reveals that there was a considerable degree of negative influence of the debtor's management of the company on its overall profitability. So, the performance of debtors' management is not considerable during the study period.

CONCLUSION:

In order to keep up with the growing demand, many auto makers have started investing heavily in various segments of the industry during the last few months. But, this study involves determining the relationship between Asset Management and Profitability of the seven selected Automobile Industries in India. The Return on Capital Employed is found to be of significant positive relationship with Fixed Asset Turnover ratio and Inventory Turnover Ratio, while insignificant negative relation with Debtor Turnover ratio. Activity or efficient or turnover ratios are concerned with measuring the efficiency in assets management. Efficiency implies effective utilization of available resources. But, it should be followed the common matter that speedy disposal of finished goods stock; effective use of working capital; quick collection of sundry debtors and similar efficient operations have a positive and healthy impact on the success and the profitability of the Automobile Industry.

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