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## **Relationship between Non-current Assets & Firms Profitability**

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**Abstract:** The current study examines the relation between capital expenditure and earnings of the companies which are non-financial. The scope of research is related to the firm's profitability and the relationship with the noncurrent assets as managing working capital and capital expenditure efficiently affects the profitability of the firm. Last ten years data of non – financial firms listed at KSE 100 index was taken. It includes Cement, Manufacturing, Engineering, Chemical, Paper, Sugar, Textile, Transport, Tobacco, Vanaspati and Jute etc for this purpose Multiple regression analysis has been utilized to find out the effects of non – current (I.V.) on profitability (D.V). It is concluded that there is an association between Non-Current Asset and Firms Profitability indicating hypothesis is accepted.

**Keywords:** Non-current Assets; Firms profitability

### **1. Introduction**

Capital expenditure refers to the decisions related to capital budgeting as replacement of equipment or the expansion of plant. This expenditure is basically related to financial decisions of a firm. This should assure that net present value must be generated. Capital expenditure must be directly related to the corporate income in future. There are two kinds of assets in the commercial firms. Such as current asset and the fixed assets. The examples of fixed assets are building, land, furniture etc. the productive capacity can be generated by investing in such assets which ensures long term profit range. The kinds of such assets do not change frequently. The basic purpose of the purchase of such assets is to produce and sell more. Assets have significant role in determining the role and the profit ratio of a firm (Smith, 1980). There are many reasons that why the assets are considered to be most important. The non-current assets are about half of the total assets of the manufacturing firm and in a distribution firm.

A greater return on investment can be obtained by having huge level of assets which are not current. However, Van Horne and Wachowicz (2004) claimed that there can be negative effect of profit of a firm on the current assets of the firm, while the deficiency of current assets may drop down the stock outs and the liquidity of a firm so that the liquidity of firms could not be disturbed.

Effective organization of profitability and assets has an important impact on the strategy of Entire Corporation so that to create the value of shareholder.

To evaluate the relation between capital nature expenditures and the corporate income of non- financial companies.

H1: There is an association between Non Current Assets and Firm's Profitability

## **2. Literature Review**

The investor and the creditors has much interest in the financial statements of a particular structure has the main value of firms. The report of financial conditions is very helpful for the creditors and the investors specially in enhancing the business and making effective business. The most important part for the financial analysis especially with context to market value of a particular corporation. Usually, the firms who have low liquidation value are more considered for the analysis. The era of 2002 was considered more relevant as the net cash value for many firms drop down even to the net cash at hand. This kind of condition is mostly dangerous for the firms in long run a very careful explanation is required for managing the assets and liabilities in short run. The fixed asset has the major role in the profit ratio determination and the evaluation of risk involved (Smith, 1980). Effective organization of fixed assets is the most important part of the entire corporation and in creating the value of shareholders. The earning per share is not increased by the minimum weighted average capital cost as the value of the stock of the firm increases due to it. The liability increases the EPS but it also increased the risk. So we can say that the EPS is not maximized by the increased price of stock. The structure of the capital does not involve the complete debt as it include 100 percent debt rate (Barrons, 2003) the non-current assets cannot be converted into cash during a year of running a business. It includes the land, equipment of manufacturing and other assets which last for longer periods of time if we analyze the non-current assets are more revenue generators than the current assets but the risk involvement is more than the current assets as it is difficult to convert them into cash and the value also differ in different point of times than the current assets (Scott, 2003). Modigliani & Miller (1958) claimed that the maximum capital structure can be obtained when the savings of tax on debt is settled by the risk of getting bankruptcy.

When the capital structure of this kind is established then the shareholders' value may be increased and these outcomes may be more than the return from the capital invested and made up of the equity of the firm.

It can also be said that the debt is the reason of disciplining the managers but this can also be the reason of running the firms. Modigliani & Miller (1963) claimed that the debt based on interest and the deduction of tax must be component of the whole structure of the firm. (Robichek & Myers 1966).

As when the debt level increases, the involvement of the creditor's increases and they are the key decision makers regarding to the strategies adopted in future as well. This may be a cause of conflict between the shareholders as the ideas cannot be communicated effectively. The holders of debt want to ensure. While the shareholders are more concerned to the return they must get. As if the firm has the cash flow that only covers the debt obligation, then there may not be remained enough cash to be paid to shareholders. So the shareholders want the firm to invest in such businesses which generates enough cash value to the firms remained. So the reasons of the conflict between shareholders and the firm arise because the shareholders want the firm to invest in profitable businesses only (Florackis, 2008). So in order to refrain it the shareholders and the firm want to invest in more profit generating investment opportunities. So it can be said that if the debt holders pressurize the firm excessively then the firm can reduce its performance level and can invest in the businesses which involve low risk to fulfill the liabilities and avoid the firm to invest in long term investment opportunities having high risks.

Lamberson (1995) showed that asset the management of the firm is the most critical issue in the firm where there are many managers who are managing the financial conditions in order to identify the reasons of good asset management and the level of optimization of management of assets (Afza & Nazir, 2009). By having the balanced level of asset management, the major component is the skills and the ability of the management of the firm who make key decisions in order to manage the key areas of receivables, inventory and other issues as well (Filbeck & Krueger, 2005).

The amount of investment in current assets can be managed by decreasing the costs of finance and by increasing the funds available to the firms. Lamberson (1995) explained that the effectiveness of the managers can be computed by the time they make decisions and the efforts that are exerted on the identification of the problems. The best level of asset management is by keeping balance in the efficiency and risk involved. There can be various ways for optimization of different parts of asset management (Afza & Nazir, 2009). The cash conversion cycle is considered to be the best measurement of the asset management which can be formulized as average collection period and the .The investment volume is dependent on the larger span of time. The higher sales are resultant of higher cycle of cash conversion. The cash conversion cycle can lead to minimize the profit ratio of corporation. If the cost of managing the asset management is increasing and increases more than the advantages of holding excess stock in the warehouses and the term of credit are getting favorable (Deloof, 2003). The profit rate and the asset management relationship are explained by different researchers. Shin & Soenen (1998) conducted a survey in which the sample of firms totaled 5897, is used between the years of 1978-1988 to explore the relation between the trade cycle to measure the effectiveness of asset management and the profit ratio.

In all these circumstances, a strong indirect relation was proven between the trade cycle and the profit ratio. Deloof (2003) explored the relation between the profit ratio and the asset management by collecting the sample of firms that are non-financial total of 1000 Belgium based firms. The results of study showed the indirect relation between the profit ratio and the asset management of all the firms based in Belgium. The research showed that the profit rate can be decreased. The firms having less profit took more time to pay. Singh & Pandey (2008) explained that the impacts of the components such as asset management and the profit ratio are more relevant. The results indicated that liquid ratio, ratio of current assets have significant impacts on the profit rate. Lazaridis & Tryfonidis (2006) have explored that the relation between the profit ratio and the asset management is significant. The sample of firms during 2004 was collected to observe the facts. The results showed the statistical significance between the both. And it was measured by cycle of cash conversion. Managers of firms can create the consistency by handling correctly the cash in hand and the inventories. Rahman & Nasr (2007) conducted a study of 109 firms based in Pakistan listed in Lahore exchange for about 8 years and observed the facts affecting the asset management ratio and the profit ratio. The results indicated that there is inverse relation between collection period and the inventory turnover, cycle related to cash conversion. Moreover, they also indicated that the size of the firms and the profit ratio by the logarithm of turnover. Finally, Afza & Nazir (2009) also made a study to establish the relation between the relation of asset management and the profit ratio for a sample of 207 firms based in Pakistan for the period of 2009. The study also investigated the industrial effects on the firms. Moreover, an indirect relation was also proven between the both.

### **3. Research Methods**

The data for this study is taken from different sources like: company's financials, financial daily websites, course books and Karachi Stock Exchange. The research is based upon the convenient sampling among the registered firms by Karachi Stock Exchange (KSE). The financial statements were analyzed and the statistical analysis concluded the results of the study. For this purpose, past 10 yrs. financial statements were analyzed as well as balance sheets of KSE 100 index all non-financial companies.

Sample size was taken on the analyze past 10 years financial statements as well as balance sheets of KSE 100 index all non-financial companies. Total (9) nine listed companies were selected and some miscellaneous sectors. Nine listed companies included Textile, Chemical, Engineering, Sugar & Allied , Paper & Board, Cement, Fuel & Energy, Transport/ Communication and Jute Sector.

In this research multiple regression analysis has been used for the analysis of the results because research has to find out the association and the relationship Non Current Assets and Firms Profitability. The dependent variable is taken as profitability and independent variable is non-current assets.

#### 4. Results

H1: It has been found as a result of the study that there is an association between Non-Current Assets and Firms Profitability.

**Table 4.1**

Model Summary of all Non Financial Companies

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.038 <sup>a</sup>	.001	.001		2.475957

a. Predictors: (Constant), Fixed\_Asset\_\_Return\_over

**Table 4.2**

ANOVA<sup>b</sup>  
All Non Financial Companies.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.876	1	37.876	6.178	.053 <sup>a</sup>
	Residual	26256.348	4283	6.130		
	Total	26294.224	4284			

a. Predictors: (Constant), Fixed\_Asset\_\_Return\_over

b. Dependent Variable: GPMargin

In comparing non-current assets from firm's profitability, research compares fixed assets turnover as a non-current assets ratio, and gross profit margin (GPM), returns on assets (ROA), returns on equity (ROE) as firms profitability, as whole all four; fixed assets turnover, ROA, ROE and GPM are profitability ratios.

From the table; the F-test is statistically insignificant; model shows the significant value 0.053 which means that the model is statistically insignificant. It seems that the fixed assets turnover have an impact on gross profit margin. The R-squared is 0.001 means that approximately 0.1% of the variance of Predictors is accounted for by the model.

For finding the nature of relation between fixed asset turnover and gross profit margin we must study the Regression Coefficients.

For finding the relation of higher the noncurrent assets higher the firm's profitability, the research is based on different sectors and calculated on the basis profitability ratios. Research use fixed asset turnover as noncurrent asset ratio. Gross profit margin (GPM), Returns on assets (ROA), Returns on equity (ROE) as firms Profitability. As whole all four; fixed assets turnover, ROA, ROE and GPM are Profitability Ratios.

**Regression Coefficients of all Non Financial Sectors: (Fig 4.3)**

**Sector – Textile Sector**

<b>Coefficients<sup>a</sup></b>							
Textile Sector	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Gross Profit	1	(Constant)	-0.234	0.106		-2.211	0.027
		Fixed_Asset__Return_over	0.056	0.031	0.043	1.828	0.068
ROE	1	(Constant)	0.069	0.105		0.659	0.51
		Fixed_Asset__Return_over	0.031	0.031	0.024	1.005	0.315
ROA	1	(Constant)	3.027	1.027		2.949	0.003
		Fixed_Asset__Return_over	-0.078	0.299	-0.006	-0.26	0.795

In the above textile sector, fixed asset is use as model constant and it has been found that GPM is showing 10% positive correlation i.e. 0.068, it means that there will be an association between greater use of fixed asset turnover and higher gross profit. On the other hand, other variables like ROE (return on equity) and ROA (return on asset) have no association with the fixed asset turnover.

**Sector – Chemical Sector:**

<b>Coefficients<sup>a</sup></b>							
Chemical Sector	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Gross Profit	1	(Constant)	-0.031	0.065		-0.487	0.627
		Fixed_Asset__Return_over	0.027	0.01	0.146	2.71	0.007
ROA	1	(Constant)	1.108	0.236		4.702	0
		Fixed_Asset__Return_over	-0.052	0.037	-0.078	-1.428	0.154
ROE	1	(Constant)	-0.787	0.677		-1.162	0.246
		Fixed_Asset__Return_over	0.11	0.105	0.057	1.043	0.298

In the above chemical sector, it has been found that there is an association between fixed asset turnover and gross profit due to the higher use of fixed asset in the chemical sector where as the ROE and ROA both are showing negative association by keeping fixed asset constant. This can be occurring due to the lesser amount of Net Income and greater amount of Sales and Shareholder equity.

**Sector – Engineering Sector:**

Coefficients <sup>a</sup>							
Engineering Sector	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Gross Profit	1	(Constant)	0.03	0.015		2.025	0.044
		Fixed_Asset_Return_over	0.007	0.001	0.241	4.851	0
ROA	1	(Constant)	0.159	0.039		4.029	0
		Fixed_Asset_Return_over	0.011	0.004	0.151	2.981	0.003
ROE	1	(Constant)	0.003	0.008		0.355	0.723
		Fixed_Asset_Return_over	0.009	0.001	0.506	11.476	0

In the above table of Engineering sector, it has been found that there is a perfect and strong association between the greater use of fixed asset turnover and higher use of gross profit. In the same manner, ROE and ROA have also shown positive correlation. The significance of this positive correlation was greater use of net income, profitability and share holder equity.

**Sector – Sugar & Allied Sector:**

Coefficients <sup>a</sup>							
Sugar & Allied Sector	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Gross Profit	1	(Constant)	0.069	0.017		3.977	0
		Fixed_Asset_Return_over	0.008	0.007	0.073	1.282	0.201
ROA	1	(Constant)	0.29	0.518		0.56	0.576
		Fixed_Asset_Return_over	0.042	0.197	0.012	0.213	0.832
ROE	1	(Constant)	0.028	0.035		0.807	0.42
		Fixed_Asset_Return_over	0.009	0.013	0.04	0.705	0.481

In the above table of Sugar and Allied sector, fixed asset turnover is use as model constant with three dependent variables i.e. Gross profit, ROA and ROE. It has been shown out by figures that there is no association between greater use of fixed asset by keeping change with the sales, owner's equity and gross profit margin. The consequences of this variation could create loss in the company.

### Sector – Paper & Board Sector

Coefficients <sup>a</sup>							
Paper & Board Sector	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Gross Profit	1	(Constant)	0.086	0.022		3.869	0
		Fixed_Asset_Return_ove r	0.011	0.004	0.289	2.992	0.004
ROE	1	(Constant)	-0.219	0.168		-1.304	0.195
		Fixed_Asset_Return_ove r	0.044	0.028	0.158	1.58	0.117
ROA	1	(Constant)	0.028	0.014		1.992	0.049
		Fixed_Asset_Return_ove r	0.014	0.002	0.524	6.09	0

In the above sector, regression coefficient for fixed asset turnover and the coefficient of other profitability ratios i.e. gross profit margin and ROA shows positive relation means if fixed asset increases then GPM and ROA also increases. Whereas in ROE, it is showing negative relation with the fixed asset turnover, it means that there will be no impact on the ROE if we increase the fixed asset turnover.

### Sector – Cement Sector

Coefficients <sup>a</sup>							
Cement Sector	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Gross Profit	1	(Constant)	0.078	0.022		3.578	0
		Fixed_Asset_Return_ove r	0.038	0.003	0.682	13.413	0
ROA	1	(Constant)	0.016	0.008		1.992	0.048
		Fixed_Asset_Return_ove r	0	0.001	-0.044	-0.64	0.523
ROE	1	(Constant)	0.005	0.008		0.606	0.545
		Fixed_Asset_Return_ove r	0	0.001	-0.01	-0.151	0.88

In the above table of Cement sector, it has been found that the gross profit margin has shown positive correlation by keeping fixed asset turnover constant whereas the other profitability ratios have shown negative correlation i.e. ROA and ROE. It means that if we increase the fixed asset in the cement asset then there will be no impact on the share holder's equity and Sales / Net income of the particular company.

#### Sector – Fuel and Energy Sector:

Coefficients <sup>a</sup>							
Fuel and Energy Sector	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Gross Profit	1	(Constant)	0.064	0.017		3.858	0
		Fixed_Asset__Return_over	-0.04	0.074	-0.035	-0.571	0.569
ROA	1	(Constant)	0.064	0.007		8.906	0
		Fixed_Asset__Return_over	-0.04	0.032	-0.08	-1.318	0.189
ROE	1	(Constant)	0.054	0.009		6.145	0
		Fixed_Asset__Return_over	-0.04	0.039	-0.055	-0.909	0.364

In the above Fuel and Energy sector, it has been found that there will be no impact by keeping constant of fixed asset with the profitability ratios like GPM, ROA and ROE. The above values shows a negative coefficient value, means if a unit increase in ROA, ROE and GP margin there is same unit (value of coefficient) decrease in fixed asset turnover of Fuel & Energy sector.

#### Transport & Communication Sector

Coefficients <sup>a</sup>							
Transport & Communication Sector	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Gross Profit	1	(Constant)	0.142	0.018		7.831	0
		Fixed_Asset__Return_over	-0.15	0.083	-0.16	-1.756	0.082
ROA	1	(Constant)	-0.6	0.593		-1.018	0.311
		Fixed_Asset__Return_over	0.625	2.738	0.021	0.228	0.82
ROE	1	(Constant)	0.032	0.019		1.654	0.101
		Fixed_Asset__Return_over	-0.03	0.089	-0.034	-0.371	0.711

In the above research of Transport and Communication sector, it has been shown that there is a positive association between greater use of fixed asset turnover and higher use of gross profit whereas ROE & ROA have shown negative association with the same constant model i.e. fixed asset turn over. It means that by increasing value of fixed asset, there will be no impact on the ROA & ROE.

### Jute Sector

Coefficients <sup>a</sup>							
Jute Sector	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Gross Profit	1	(Constant)	0.015	0.016		0.927	0.358
		Fixed_Asset_Return_over	-0.01	0.024	-0.038	-0.291	0.772
ROA	1	(Constant)	0.027	0.015		1.858	0.068
		Fixed_Asset_Return_over	-0.01	0.022	-0.076	-0.583	0.562
ROE	1	(Constant)	-0.03	0.028		-1.127	0.265
		Fixed_Asset_Return_over	0.015	0.042	0.046	0.353	0.725

In the above Jute sector, it has been found that there will be no impact by keeping constant of fixed asset with the profitability ratios like GPM, ROA and ROE. The above values shows a negative coefficient value, means if a unit increase in ROA, ROE and GP margin there is same unit (value of coefficient) decrease in fixed asset turnover of Jute sector.

### Miscellaneous Sector

Coefficients <sup>a</sup>							
Miscellaneous Sector	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta			
Gross Profit	1	(Constant)	0.14	0.012		11.643	0
		Fixed_Asset_Return_over	-0.05	0.026	-0.075	-1.789	0.074
ROA	1	(Constant)	0.085	0.042		2.024	0.043
		Fixed_Asset_Return_over	-0.03	0.093	-0.014	-0.339	0.735
ROE	1	(Constant)	0.096	0.026		3.733	0
		Fixed_Asset_Return_over	-0.03	0.056	-0.024	-0.568	0.57

In Miscellaneous sector the coefficient for fixed asset turnover tends positive toward gross profit margin whereas in other cases i.e. ROA & ROE, it is showing negative correlation with the fixed asset turnover. It means that there will be no impact in sales and owner's equity if we increase the fixed asset. Miscellaneous sector included vanaspati & ghee, soap and tobacco companies etc.

## 5. Conclusions

### Summary of Hypothesis Assessment

It has been concluded the coefficient of fixed asset turns tends positive towards gross profit margin in most of the non-financial companies as compared to other profitability ratios like ROE & ROA i.e. textile sector, sugar & allied sector, cement sector & paper & board sector where as rest of the companies have shown negative impact.

S.NO.	HYPOTHESES	SIG.	RESULT
Ho	There will be an association between Non Current Assets and Firms Profitability.	>0.05	Accepted

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