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IMPACT OF WORKING CAPITAL & FIRM SIZE ON FRIM PERFORMANCE: AN EVIDANCE FROM BRIC AUTOMOBILE INDUSTRY

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ABSTRACT

The final outcome for investments, finance and operating activities of any business can be conceptualized by knowing the net profit of that business for a particular time period. These are the activities that are affected through the decisions taking by the management as well as many other internally and externally effecting factors. So this study is also designed to check the effect of the working capital managing decisions as well as capital structure for the automobile industries working in Pakistan. For this purpose current ratio is used to know the effect of the management decisions while the leverage is chosen as base for the structure of the capital. Along with these other analysis like the impact of the operating leverage are included for the results. Firm size is also an important factor and I also consider it in thesis. The goal of the study is to analyze the impact of all above mentioned factors for which pooled data analysis is selected using the appropriate financial theories. Some strategies that are not included in these theories are also explained in the study. Tests are applied on the data to check the results and also some recommendations are provided on how the management decision can be like to have more profit also that how automobile industry can enhance the growth through financial as well as operating leverage

***Key Words**: Working Capital, Firm Size, Firm Performance, BRICS*

INTRODUCTION

Growth of any industry is based on stability, profitability as well as that how it survives in the economy. Another challenge facing management in the world, how is capital structure it will affect the performance of the company's capital and development opportunities. One Common problem managers and other decision makers facing, “is capital Working capital (financial), the structure of the company's opportunities for growth?”

Automobile is one of the largest industries in Pakistan after the agriculture sector and other manufacturing sectors and it has a part of almost 19% in the total GDP of Pakistan. It is growing rapidly from the last decade as the demand for automobile especially personal cars is increasing day by day. In automobile sector, larger scale manufacturing of automobiles has an important role and stand of the industries that have more than 70% of overall productions (Government of Pakistan 2008-2009). As it is an important and significant sector of Pakistan in overall economical growth, there is need for the depth analysis of the whole industry as well as the firm size level. Automobile sector in terms of asset allocation and size is dominated on the other manufacturing sectors. Because of the larger structure of this industry working capital management should be applied efficiently. The requirement for good management of assets is for the best and efficient performance and gets more profitability. Working capital management in terms of the larger industries just like automobile industry in Pakistan is necessary and has an important role in the firm performance, where the major part is covered by the current assets for the production (Horne &Wachewitz, 2007). This management has the direct impact on the firm profitability as well as the liquidity ratio (Rehman& Nasr, 2010). The tradeoff between the working capital and the firm's liquidity ratio is very important in management decision and need the special consideration because if it get ignorance then the firms may not grow in the economy and therefore get bankrupted (Karger&Bluemental 2008). The importance of the working capital is of great value that cannot be ignored in any case (Fill. & Kruger, 2011). It can be said as the backbone of the industry over which the whole life of the firm or the industry depends. We know all that the corporate governance cannot be ignored in an economy for the growth of the industry, in similar manner the good decision of the management for the capital allocation is important to have a contribution in the economy. Each and every business either it is to generate thee profit or for ethical and social purpose, it does not matter how much the size it has or what nature it is based on, require the efficiently management for its resources especially when It has the current assets as in case of the automobile industry. It requires the well organized structure, maintenance of the required ratio of the liquidity of assets (Mukhop, 2006). Working capital is the most importance decision making in the management decision when there is trade off the current assets and the liquidity ratio (Eljil, 2012). It involves in the decision making of the composition between the liquid assets and the inventory.

Literature Review:

Corporate literature on finance has main focused on the research of long run resource material for finance when the large number of the researchers analyzed the subject of structure of capital, investing decisions, dividend policy and the market value of the firm. While the short run resources for the investing decision by the firm, that have age limit less than 1 year, in the form of current assets are also representing a larger part of the whole assets on the financial report of the automobile firm. To manage these short run assets are considered in the category of the working capital management that is known as WCM. Management of the working capital is of great importance because it han implementation on the profit generated by the firm as well as the market value of its productivity (Smith A., 1990). Any type of the investment for the working capital is linked with the trading off within the risk associated as well as the ability to produce the profit. The reason is that when the firm decided to increase the investment it also affect the risk ratio and risk ratio increase as well. One can say the positive relation of the investment and the risk ratio of the firm (Falangan, 2005). The whole scenario means that the working capital management should be in efficient way especially in the industry of the automobile as there are large numbers of the current assets in this industry. The ratio of the current assets is larger than the half proportion of the total and in some cases it may cover more than 70% of the total assets.

The efficient management of the working capital also requires the heavy amount of the cash flows for the firm to run the operation, that can increase the investing opportunities and that eventually goes for the benefit of the stock holder of the firm.Financial activities were meant as the disciplinary actions many years ago in the field of accountancy as well as in economics. Proper holding of the liquidity ratio according to the requirements of the firms was considered as one of the major aims of the firm and the finance manager provide proper attention for that. It was considered that the higher the liquidity ratio, higher will be the profit firm will generate (Finlay, 1999). It was also a common to keep the high ratio of liquidity ratio against the firm risk, so that firm can survive easily in the market. The concept was common because at that time the relying of the firm profitability was on the liquidity ratio. But with the passage of the time it was come into the understanding of the firm's management that managing the high volume of the liquid assets has negative implementation on the profit of the firm. The reason was simple that most of the cost of the firm was utilized in maintaining the assets as current assts so the reduction in the operational activitie, so firm gets less profit (h.Grehard, 2007).

Although the profit and the liquid assets are very significant purpose of any firm and both are on forgoing costs of each other. It means that both are in the way that if one is increases the one has to reduce in order to keep on production. Profit is the goal that every firm not only desires but also a need for surviving in the market. So it is not wrong to say that it is the long run goal of the industry. While the liquidity is the opposite of the profit that is considered only for the limited time period so is the short run asset that is only required in the time of bank cryptic (seeriter, 2010).

Research Objectives:

For efficient growth and profit of a firm it is necessary have good management decision. Working capital management is the backbone of a firm on which the whole firm is highly relying. The study was chosen by considering this important factor of the above mentioned. The main objectives were therefore;

- ✓ To acknowledge the impact of the working capital management on the profit of the firm and how the good or bad decision regarding working capital impact the firm performance.
- ✓ As it is said to be the backbone of a firm then the study is conducted to decide how the relation exist between them and how one can manage this
- ✓ Firm size liquidity ratio impact on performance of the firm is another objective of the study.

Hypothesis:

The main theme of the study is whether there is any impact of the working capital and the firm size on the performance of the firm of the automobile sector of BRIC. For that purpose the four variables were considered as in dependent variables and from that hypothesis were conducted in order to achieve the results. The hypotheses are as follow;

- **Hypothesis 1:**

H_0 = higher measurement of leases does have any impact on the profitability of the automobile industry of BRIC listed companies.

This is the measure of both the operational lease as well as the operating lease. Both are important factors in the working capital terminology as both are the major part of any industry as WC.

- **Hypothesis 2:**

H_0 = The size of the firm have no impact on the profit of the firm.

Some of the industries are highly dependent on their size for the operation. So the question is that is the size also matters in the automobile industries? So as is the hypothesis.

- **Hypothesis 3:**

H_0 = LR is irrespective of the profit of the firm

Liquidity is the requirements of all types of the businesses but the ratio vary from industry to industry. Some industries require a high level of liquid assets while others may not have that much requirements. So what is the need of the automobile firms in this regards and how they response to this ratio is the next research purpose, as it is also an active part of the WC.

Study Limitations:

This study is limited to the automobile sector and further only Pakistan industry is considered. Data collection is from 7 automobile listed firms on stock exchange from 2006-2015. The analyses are based on the five variables (DOL, Sales Log, DFL, CR and profitability i.e. EBIT).

The working capital is not a limited source to the automobile industry but it is sometimes considered as the backbone of the businesses. But indeed it is always a backbone of the businesses never linked to a particular industry or the business. So the performance of the industry can be measure by the exact measures of the working capital elements so that firms can get what the measure of each part of the capital should be profitable for the firm or the particular industry.

But at this level it is not possible to check its compatibility on each industry. So this research is limited to a single industry and on limited areas of the world

METHODOLOGY

Manufacturing firm specially the automobile firm has great influence of the management of the working capital and the firm size through the growth and productivity of the industry. But this influence does not get much preferences and remained n ignoring trend in the economy of Pakistan when we review the history. In the present empirical literature of the Pakistan, it can be seen that there is a deficiency in this line of research and few of the researchers taken it to study this field of research. Therefore the current literature can be improve by the contribution of studying of the importance of the management of the working capital as well as the size of the firm on the growth of the manufacturing industry particularly automobile industry. Literature review on management of the working capital and the production growth in last chapter was based on formulating the research question and to create the hypothesis for this study.

This chapter is designed to explain the method that was used to carry this research and to get answer of how the working capital management can affect the firm performance. For that purpose automobile industry of Pakistan, was chosen to check the response toward the management and to analyze that how the decision for management of the working capital (WC) changes the growth and performance of the firm. First sections of the chapter is designed as details of methodology used for the prescribed purpose based on the industry wise management of the working capital related to the profit of the automobile industry and also analyze its impact on overall sector.

Justification for theoretical working, variable and modeling were used for estimation of total production growth and resources for manufacturing in Pakistan are described in second section of this chapter. The last part of the chapter is based on the sampling and data and last one is on the conclusion.

Data & Sampling

Following were the techniques and sampling data was considered in the study;

. Source of Data:

Data was chosen from the stock exchange Karachi automobile listed firms from the time period 2004-

Population:

The overall strategy was to check the impact of the management of the working capital on the firm

Sampling

Automobile sector of Pakistan is one of the emerging industries in these days of Pakistan. To check the impact on the whole industry was not possible so for this study randomly 7 companies were chosen to check the relation and hence total 67 firms were in these companies.

Research Design

The analyses were based on the cross sectional and time series data. Panel data analyses were applied. Both cross sectional as well as time series were placed in a same column and then implied the econometrics modeling;

$$\mathbf{P=\beta_{0+}\beta_1 DOL+ \beta_2\, FS+ \beta_3 DFL+ \beta_4 Lq+\varepsilon}$$

Here the ROA & ROE are set as proxy for profit, so the model can be transformed as

$$\mathbf{ROA=\beta_{0+}\beta_1 DOM+ \beta_2\, FS+ \beta_3 DFM+ \beta_4 Lq+\varepsilon}$$

$$\mathbf{ROE=\beta_{0+}\beta_1 DOM+ \beta_2\, FS+ \beta_3 DFM+ \beta_4 Lq+\varepsilon}$$

Where;

- P=Profit
- ROA = Return on Assets
- ROE = Return on Equity
- β_0 = Constant
- β_1 - β_4 = Intercepts
- DOL = degree of operating Lease
- DFL = Degree of Financial Lease
- FS = Firm Size
- Lq = Liquidity ratio
- E = error

3.5 Conceptual Frame work:

The expected theoretical concept and from previous literature, that DOL which is measure as %age change in EBT due to %age change in sale has both negative and positive impact on profit of the firm. DFL that is measure as %age change in EBT due to change in EBIT has also implication in same line. But Firm size is positive related to the profit and liquidity has negative relation.

Descriptive Statistics

The proposed possible effects of the defined variables for checking the profit of the firm under the lying topic are described as;

- MOL = %age change of EBIT/ %age change in sales of the firm
- MFL = EBT / EBIT
- FS = Sales' Log
- LR = Assets/ Liabilities

This study is as described above is based on the BRIC automobile industry, since the data was collected by choosing randomly 25 listed companies of BRIC on stock.

First descriptive statistic analysis were applied as shown in the table below. This table is based on the information depending upon the nature of the variables. From this table one can noticed that the mean value extracted for the measure of operating lease has lower value as compare to the other variables but it can also be seen that this value is volatile in nature as compared to the financial lease. But the main thing is that both have the same direction of skewness and are on the same measure level for that. These are both skewed in negative scenario so having the same magnitude value.

If we have a look on the LR it can be seen that the LR is following the normal direction and so have the normal distribution. The evidence is from the table constructed as the value of the LR is close to zero and the Kurtosis is about to near of 3.

If we talk about the mean value of the profit of the firm, then one can see that it is negatively skewed that is proving that the profit first increase on the early basis and then started declining rapidly.

Descriptive Statistics

	Minimum	Maximum	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error
MFL	-2.1300	1004.4000	26.350997	6.6851999	100.2779978	8.482	.162	80.170	.323
MOL	-1.7600	119.2000	20.023630	2.3340347	35.0105211	1.601	.162	1.003	.323
FS	-.1100	145.4000	3.552458	.6368017	9.5520253	14.747	.162	219.953	.323
LR	-276.1000	673.0000	76.205254	11.5378323	169.9628837	0.008	.165	3.713	.329
P	-276.1000	1555.0900	399.479459	33.2477874	495.3808758	-1.290	.163	.289	.325
Valid N (listwise)									

ANOVA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.167[a]	.028	.009	496.1846598	.028	1.508	4	210	.201	.413

4.2 Regression Analysis:

After that the regression techniques were used for the further elaboration. Regression of the profit had been run on the MFL, MOL, FS and LR in order to check if these all variables have the equally explanatory power of variable having the same level of significance. Log form had been used for the measurement of the size of the firm as well as for the profit level of the firm. The other three variables, measure of financial lease, measure of operating lease and the ratio of the liquid assets are then taken in the form of the percentage changes so no requirement further were needed to took their logs as well. The formal way of finding regression thus provides the elasticity of the variables rather than the slope of the variables.

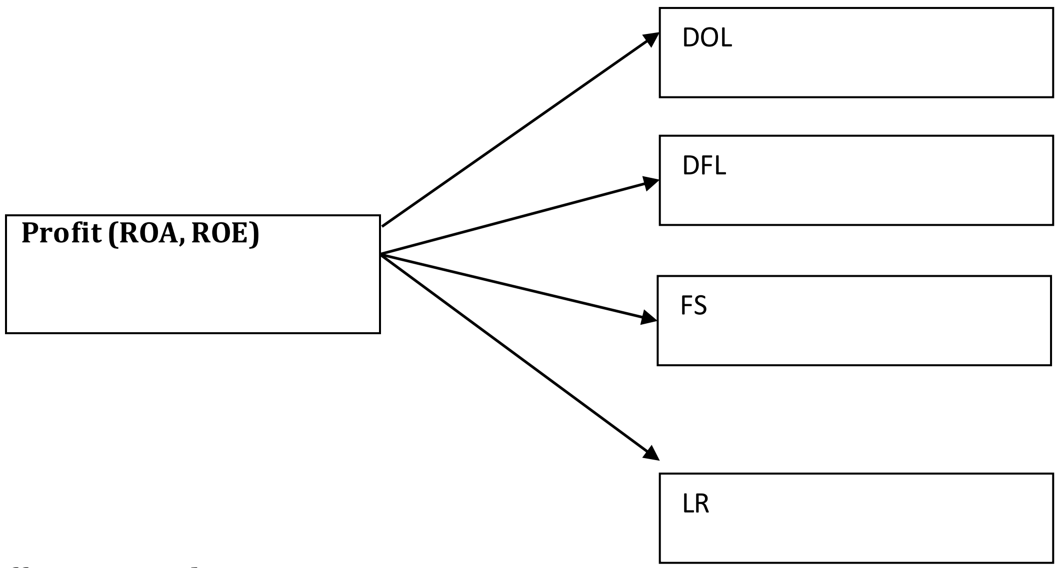
Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.167[a]	.028	.009	496.1846598	.028	1.508	4	210	.201	.413

2	Regression	1484752.576	4	371188.144	1.508	.001[b]
	Residual	51701835.501	210	246199.217		
	Total	53186588.077	214			

From below tabulated form of the results are showing that the almost the value of R is 0.753. This is showing that almost 3 quarts of the values verification in the profit of the firms is said to define through the combination of all above defined variables. F-test was applied to the data and that showed the values determined through F statistics are 41.03 that is indicating that the overall model is good.

3.6 Theoretical Frame Work:



Coefficient Correlation:

The reliability of the model and the coefficient correlation were also checked for further evidences as shown in the table given below; In this table one can see that there is a very little or no relation has been found between the variables. The negative sign indicates that there is no relation among the variables so proving the goodness of the model.

Coefficient Correlations

Model			LR	MFL	MOL	FS
1	Correlations	LR	1.000	.012	-.019	-.112
		MFL	.012	1.000	-.018	-.044
		MOL	-.019	-.018	1.000	-.195
		FS	-.112	-.044	-.195	1.000
	Covariance	LR	.040	.001	-.004	-.791
		MFL	.001	.110	-.006	-.520
		MOL	-.004	-.006	.947	-6.714
		FS	-.791	-.520	-6.714	1251.862

a. Dependent Variable: P

So there is the proof for the acceptance of the null hypothesis that there is nothing in relation to the variable so zero correlation exists.

CONCLUSION& RECOMMENDATIONS

The study was based on the 25 firm's sample data of BRIC automobile industry. The companies were chosen that listed on the stock. The data was from the range of 2000 to 2015. The evidence that were taken after implementing the results was as follow;

- Financial lease has always showed a important positive impact on the firm profitability. More the measure of the financial lease leads the firm towards the higher performance of the operations of the firms that in turns move the profit of the firm on higher level.
- Operating lease is negatively related to the growth and the performance of the firm and also this negative impact has a great role in the performance of the firm and also on the profit of the firm.
- Third result was that the size of the firm also cannot be ignored as it was concluded through results that the firm size is directly related to the performance and the growth of the firm. The higher the size of the firm, the greater the chances of the growth of that firm.
- Increments in the liquidity assets lead the firm towards the high profit and hence the more performance.

The reliability of these results was proved through running the Chow test analysis on the available data. Also Dickey Filler (ADF) test analysis was applied on the data. Both were applied on the unit root derived from the residual values for the estimation of the model that were used in the study. The proofs were found from these analyses that the link of the profit of the firms with these variables has stability in nature over the prescribed time period for the examination. Augmented results are proving that the results from the Chow's test are stable in nature for the value of the variables. So all these measures are showing that the model applied for the testing purpose are reliable and they have a great statistical importance. So these are the results that a firm or the industry can use to set a valuable firm performance. So these are the estimations that can be used in order to define that why there is instability or the variation in the firm performance over a certain time period. These are the results that can also be fruitful for the finance manager who are respondents to the change in the profit of the firm to make their policies according to the existing relation between these variables and the profit of the firm. As the whole data was from the automobile industry so particular focus was on that industry and therefore all the results are without any doubt can be beneficial for the managers of this industry.

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