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The Role of Working Capital Management in Automobile Industry in Iran

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ABSTRACT: Working capital management plays a significant role in automobile industry. Working capital management is closely linked with the management of cash. And, it related to short-term decisions that not taken on the same basis as capital investment decisions. In This paper, we analyse the efficiency of working capital management on automobile industry in Iran for the period 2000 to 2009. For this purpose, our research involves analysis of 8 automobile companies in Tehran Stock Exchange. The results indicate that sundry debtors and inventory have a positive relationship with working capital. Also, dividends and tax liability are positively associated with working capital. Furthermore, the correlation between raw material purchase and working capital is positive, which show that the companies are not used mostly their internal resources and have a good relationship with their suppliers. Overall, our results indicate that the working capital management has a significant impact on profitability of the firms.
Keywords: Working capital management, Automobile industry, Profit before tax, Profit after tax, Raw material purchase, Inventory, Tax liability.

INTRODUCTION

A glance at the history of automobile production in Iran since the beginning to now is clearly understood, that the automobile industry doesn't have a natural growth. And, it never seriously looking as some countries such as China and Russia. Since the first appearance of the automobile industry in Iran, Assembly method was the main method in producing. This production is not only simple and profitable but also provides high added value, whether in the public sector and the private sector. Iran, for the reasons such as the transition from the post-war era, the need for transportation improvements and increase in domestic demand, is the largest automotive consumer market in the Middle East.

Considering the importance of working capital management, the researchers focused on evaluating the working capital management and profitability relationship such as Uyar, 2009;Samiloglu and Demirgunes, 2008; Vishnani, 2007; Lazaridis&Tryfonidis, 2006; Padachi, 2006 among others. Sagan in his paper (1955), perhaps the first theoretical paper on the theory of working capital management, discussed mainly the role and functions of money manager inefficient working capital management. Sagan pointed out the money manager's operations were primarily in the area of cash flows generated in the course of business transactions. However, money manager must be familiar with what is being done with the control of inventories, receivables and payables because all these accounts affect cash position. Thus, Sagan concentrated mainly on cash component of working capital. Sagan indicated that the task of money manager was to provide funds as and when needed and to invest temporarily surplus funds as profitably as possible in view of his particular requirements of safety and liquidity of funds by examining the risk and return of various investment opportunities. He suggested that money manager should take his decisions on the basis of cash budget and total current assets position rather than on the basis of traditional working capital ratios. This is important because efficient money manager can avoid borrowing from outside even when his net working capital position is low. The study pointed out that there was a need to improve the collection of funds but it remained silent about the method of doing it. Moreover, this study is descriptive without any empirical support.

Realising the dearth of pertinent literature on working capital management, Walker (1964)made a pioneering effort to develop a theory of working capital management by empirically testing, though partially, three propositions based on risk-return trade-off of working capital management. Walker studied the effect of the change in the level of working capital on the rate of return in nine industries for the year 1961 and found the relationship between the level of working capital and the rate of return to be negative. Thus, Walker tried to

build-up a theory of working capital management by developing three prepositions. Proposition I– If the amount of working capital is to fixed capital, the amount of risk the firm assumes is also varied and the opportunities for gain or loss are increased. Proposition II– The type of capital (debt or equity) used to finance working capital directly affects the amount of risk that a firm assumes as well as the opportunities for gain or loss. Proposition III– The greater the disparity between the maturities of a firm's debt instruments and its flow of internally generated funds, the greater the risk and vice-versa. Welker, in his study (1970), stated that working capital originated because of the global delay between the moment expenditure for purchase of raw material was made and the moment when payment was received for the sale of finished product. Delay centres are located throughout the production and marketing functions. The study requires specifying the delay centres and working capital tied up in each delay centre with the help of information regarding average delay and added value. He recognized that by more rapid and precise information through computers and improved professional ability of management, saving through reduction of working capital could be possible by reducing the length of global delay by rescuing and/or favourable redistribution of this global delay among the different delay centres. However, better information and improved staff involve cost. Therefore, savings through reduction of working capital should be tried till these saving are greater or equal to the cost of these savings. Thus, this study is concerned only with return aspect of working capital management ignoring risk. Lambrix and Singhvi (1979) adopting the working capital cycle approach to the working capital management, also suggested that investment in working capital could be optimized and cash flows could be improved by reducing the time frame of the physical flow from receipt of raw material to shipment of finished goods, i.e. inventory management, and by improving the terms on which firm sells goods as well as receipt of cash. However, the further suggested that working capital investment could be optimized also (1) by improving the terms on which firms bought goods i.e. creditors and payment of cash, and (2) by eliminating the administrative delays i.e. the deficiencies of paper-work flow which tended to extend the time-frame of the movement of goods and cash. Samiloglu and Demirgunes (2008) examined the effect of working capital management on the profitability of the firms listed at Istanbul Stock Exchange (ISE). By using multiple regressions the study shows that there exist negative relationship between account receivable period, inventory period and leverage and profitability of the firms. However growth (in sales) affects firms positively. Efficiency in working capital is vital as almost half of the total assets are employed in the form of capital employed (Vedavinayagam,2007). In the trading and manufacturing firms they are even more thereby affecting profitability and liquidity of the company (Rahemen and Nasr. 2007). If we ignore optimum working capital management even in case where profitability keeps on increasing, inaccurate working capital management procedure may lead to bankruptcy (Samiloglu and Demirgunes, 2008). If we exercise no control over the levels of current assets it will deteriorate profitability and such situation can easily result in a firm's realizing a substandard return on investment (Rahemen and Nasr. 2007). Success of the firm mainly depends on efficient management capability of finance director to manage receivables, inventories, and liabilities (Filbeck and Krueger, 2005). Efficient working capital management can strengthen the firm's funding capabilities significantly.

MATERIAS AND METHODS

Our study was based on the firms' information that have been listed at the Tehran Stock Exchange over a firm-year period 2000 to 2009. Variables that used for analysis included working capital, profit before tax (PBT), profit after tax (PAT), divided, tax liability, raw material purchase, depreciation, sundry debtors and inventories.

Hypothesis

H:The working capital management is efficient in all the selected companies.

RESULTS AND DISCUSSON

It can be observed from the table (next page) that sundry debtors are positively associated with working. This shows sundry debtors would effect on working capital positively. The inventory is also showing a positive relationship with working capital (coefficient +0.540, with p-value of (0.107), which may indicate that the companies is using inventory effectively.

The Tax liability and dividends are positively associated with working capital. The correlation between profit before tax and dividend is found to be Positive (coefficient +0.510, with p-value of 0.132). This is possible because of high liquidity. The raw material purchase and working capital are related positively, which show that the companies are not used mostly their internal resources and have a good relationship with their suppliers. The relationship between working capital and depreciation is positive (coefficient +0.286, with p-value of 0.424).Correlation result between divided and depreciation is positive. The correlation coefficient is 0.981, and the p-value is (000). At all, the results show that for overall automobile industry, working capital management

has a significant impact on profitability of the firms and plays a key role in value creation for companies. And, it confirms our hypothesis. Also, this result support findings by Raheman and Afza(2010).

Table 1: Pearson correlations Coefficients (Automobile Industry)

	working capital	PBT	PAT	Divided	Tax Liability	Raw Materials Purchase	Depreciation	Sundry Debtors	Inventories
working capital	1								
Sig									
N									
PBT	0.788	1							
Sig	0.007								
N	80								
PAT	0.317	0.514	1						
Sig	0.373	0.132							
N	80	80							
Divided	0.317	0.510	1	1					
Sig	0.373	0.136	0						
N	80	80	80						
Tax Liability	0.103	0.266	-0.170	-0.171	1				
Sig	0.776	0.458	0.645	0.636					
N	80	80	80	80					
Raw Materials									
Purchase	-0.182	-0.135	-0.310	-0.307	0.445	1			
Sig	0.614	0.710	0.390	0.389	0.198				
N	80	80	80	80	80				
Depreciation	0.286	0.448	0.980	0.981	-0.114	-0.221	1		
Sig	0.424	0.194	0.000	0.000	0.754	0.540			
N	80	80	80	80	80	80			
Sundry Debtors	0.224	0.342	0.962	0.964	-0.169	-0.246	0.991	1	
Sig	0.534	0.334	0.000	0.000	0.641	0.494	0.000		
N	80	80	80	80	80	80	80		
Inventories	0.540	0.404	-0.310	-0.313	0.593	0.284	-0.228	-0.286	1
Sig	0.107	0.246	0.380	0.378	0.071	0.427	0.527	0.424	
N	80	80	80	80	80	80	80	80	

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