

Effects of Working Capital Management on Profitability of Select Automobile Companies in India



Finance

KEYWORDS : working capital, profitability, current ratio, average receivable period, average payment period

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ABSTRACT

Working capital management is very essential one for any organization. Poor working capital management will affect a company in many ways. If a company does not have sufficient liquidity, it will not be able to meet its short term financial obligations, it will decrease its profitability and some time it may lead to shutdown the business. In the study an attempt was made to know the relationship between working capital management and profitability of selected automobile companies such as Tata Motors and Mahindra and Mahindra. The study found insignificant relationship between working capital management and profitability of Tata Motors and Mahindra and Mahindra.

Introduction

Automobile industry is one of the key industries in India. It helps economy by procuring foreign currencies through export, it provides more employment opportunities to people both directly and indirectly and some other industries like glass, rubber, iron and fabrics are depended on this industry. In India there were 19 passenger vehicle manufacturers, 16 commercial vehicle manufacturers, 10 two wheeler manufacturers and 7 three wheeler vehicles manufacturers in the year 2010-11¹. Among them Tata Motors (TATA) and Mahindra and Mahindra (M&M) manufacture both commercial and passenger vehicles and they are leading manufacturers in the field.

Companies need capital both for long term purposes and for short term purposes. Long term finance is used to buy land, buildings, machinery and so on. Short term finance is required to meet day to day financial needs such as salary, wages, rent and so on. The short term finance is also known as working capital. Managing working capital is a difficult task than managing long term finance. It starts from estimating working capital of a company. But unlike long term financial management, it is a contentious process. A firm can able to meet their short term financial obligations only when it manages its working capital efficiently. If it does not manage its working capital efficiently, it may not able to meet their short term financial obligations. If it happens so, creditors of the company will stop supplying raw materials and they may seek for legal assistance to collect their dues, it will affect the reputation of the company and profit will go down due to decrease in sales. Hence there is a relationship between working capital management and profitability of a company. The present study has made an attempt to analyse the relationship between working capital management and profitability of the selected automobile companies.

Review of Literature

Several studies were available in analyzing working capital management and profitability, but in India it was comparatively low especially in automobile industry. Some of the studies both in India and foreign are presented below.

Kesseven Padachi (2006) found in his study that high investment in inventory and receivables was associated with lows profitability. The study also found a strong significant relationship between working capital management and profitability of Mauritian small manufacturing firms. Abdul Reheman and Mohamed Nasr (2007) found that there was a positive relationship between size of firm and profitability of Pakistan firms; the study also found significant negative relationship between liquidity and profitability. Adina Elena Danuletiu (2010) found a weak negative linier correlation between working capital management indicators and profitability of firms of Alba country companies. Hasan Agan Karadumam et.al. (2010) found that the return on asset was increased by the efficient management of receivable. They also found positive effect of companies' size on profitability and negative effect of debt ratio on profitability of select companies in Istanbul Stock Exchange. Melita Stephnou

Charitou et al. (2010) found that the cash conversion cycle and all its major components of working capital of firms listed in Cyprus Stock Exchange were positively associated with profitability. Amalendu Bhunia and Islam Uddin khan (2011) found lower degree of association between working capital management and profitability of Indian steel industry. Hasan Agan Karaduman et al. (2011) found influences of working capital management on profitability of the selected companies in Turkey. The study also sagged that it might be possible to increase profitability by improving working capital efficiency.

Statement of the problem

Working capital management is very essential one for any organization. Efficient working capital management will give all benefits to a company including profit maximization. Poor working capital management will affect a company in many ways. If a company does not have sufficient liquidity, it will not be able to meet its short term financial obligations, it will decrease its profitability and some time it may lead to shutdown the business. Hence the study focused on the impact of working capital management on profitability of the select companies.

Objectives of the study

The main objective of the study is to know the relationship that exist between working capital management and profitability of select automobile companies.

Methodology

The study is analytical in nature and it primarily depended on secondary data. For this purpose annual reports of the selected companies were collected and calculations were made from it. The period of the study was nine years from 2003-2004 to 2011-2012. The study selected two automobile companies such as Tata Motors limited (TATA) and Mahindra and Mahindra limited (M&M). The study used correlation analysis to know the relationship between working capital management and profitability of the select companies. The ratio of Return on Assets (RoA) was taken as proxy for profitability. Current Ratio (CR), Average Collection Period (ACP), Average Payment Period (APP), Inventory Conversion Period (ICP) and Cash Conversion Cycle (CCC) were considered as proxy for working capital management of the select companies.

Results and Discussion

The following table gives the results of correlation co-efficient between working capital management and profitability of TATA.

Relationship between Working Capital and Profitability of Tata Motors Limited

		CR	ACP	APP	ICP	CCC
Return on Assets	Correlation co-efficient	0.305	-0.251	-0.384	0.211	0.370
	p-value	0.424	0.515	0.308	0.587	0.327
	No. of years	9	9	9	9	9

The above table showed that the correlation co-efficient between current ratio and profitability was positive (0.305), but it was not statistically significant. Even though the correlation co-efficient was positive it was not much higher. The relationship between profitability and average collection period of TATA was negative at -0.251, but the correlation co-efficient was not statistically significant. The results showed that the average collection period affected profitability of the company negatively, but at moderate level. The result also showed negative relationship between profitability and average payment period. Its correlation co-efficient was -0.384, but it was not statistically significant. The negative relationship between them was not neither high nor low, it was at moderate level. Inventory conversion period and profitability were positively related. Its correlation co-efficient was 0.211. Even though the result was positive it was not much higher and it was not statistically significant. The lower result of correlation co-efficient indicates that even though inventory conversion period affected profitability positively of TATA it was not substantial. Profitability and cash conversion cycle of TATA were positively related. The correlation co-efficient between them was 0.370 but it was not statistically significant. Compared to other ratios of working capital the relationship between profitability and cash conversion cycle was high, but it was also at moderate level.

In summary no component of working capital such as current ratio, average collection period, average payment period, inventory conversion period and cash conversion cycle had significant relationship with profitability. Among them current ratio, inventory conversion period and cash conversion cycles had positive relationship with profitability, but they were not much higher. Average collection period and average payment periods had negative relationship with profitability at moderate level. It was found that working capital performance did not have significant relationship with profitability of TATA.

The results of correlation analysis for M&M are presented in the following table.

Relationship between Working Capital and Profitability of M & M Limited

		CR	ACP	APP	ICP	CCC
Return on Assets	Correlation co-efficient	-0.336	-0.747	-0.543	-525	0.061
	p-value	0.377	0.20	0.131	147	0.876
	No. of years	9	9	9	9	9

The above table reported that current ratio and profitability of M&M had negative relationship. The correlation co-efficient between them was -0.336, but it was not statistically significant. The relationship between profitability and current ratio was low. It means current ratio did not have significant relationship with profitability of M&M. Profitability and average collection period of M&M had high negative relationship each other. The correlation co-efficient between them was -0.747, but it was not statistically significant. The negative relationship between them explains that increase in average collection period affected profitability negatively. The results also showed that the correlation co-efficient between average payment period and profitability was -0.543, but it was not statistically significant. It was observed that profitability and average payment period had negative relationship between them. But the quantum of relationship between them was not much high. Inventory conversion period and profitability of M&M had negative relationship, its correlation co-efficient was -0.525, but it was not statistically significant. It means inventory conversion period affected profitability of M&M negatively and the level of relationship between them was at moderate level. Cash conversion cycle of M&M was the only variable which had positive relationship with profitability. But the level of relationship was very low (0.061) and the result of correlation co-efficient was not statistically significant.

The above results of correlation between working capital management and profitability of M&M showed that except cash conversion cycle all other components of working capital had negative relationship with profitability. Among them average collection period had high negative correlation (-0.747) followed by average payment period (-0.543). Even though cash conversion cycle had positive relationship with profitability, it was very low (0.061). But no result was statistically significant.

Conclusion

Working capital management of both the companies had insignificant relationship with profitability. Current ratio of TATA had positive relationship with profitability, whereas it had negative relationship in case of M&M. Average Collection Period and Average Payment Period had negative relationship with profitability of both the companies. But the quantum of relationship was high in case of M&M. Inventory Conversion Period of TATA had positive relationship with profitability, but in case of M&M it was negative. Cash Conversion Cycle of both the companies had positive relationship with profitability, but the quantum of TATA was higher than M&M. It was summarized that working capital management had insignificant relationship with profitability of Tata Motors Ltd. and Mahindra and Mahindra Ltd.

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