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A Review of the Relationship between Cash Conversion Cycle and Manufacturing Firm's Operating Efficiency in Pakistan

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Abstract
This study has the aim of explaining the relationship between cash conversion cycle and operating efficiency of the manufacturing sector firms in Pakistan. For this review of different research papers have been selected which have been written in different contexts in different economies. Almost all of them have selected cash conversion cycle along with other measures of the liquidity of firms and have examined its impact on the profitability and operating efficiency of the manufacturing sector firms in different countries with a lot of variation in results. Some of them have found significant positive others negative relationship between measures of the liquidity and performance of the firms. This review has compared the methodology and results of these studies.
Keywords: Cash conversion cycle, operating efficiency, working capital, liquidity

INTRODUCTION

Cash Conversion Cycle and Other Measures of Liquidity

Management of working capital is an important component of corporate financial management because it directly affects the profitability of the firms. Management of working capital refers to management of current assets and current liabilities. Researchers have approached working capital management in a number of ways. While some studied the impact of optimal inventory management, others studied the management of accounts receivables trying to find an optimal way policy that leads to profit maximization. A popular measure of working capital management is the cash conversion cycle, that is, the time span between the expenditure for the purchases of raw materials and the collection of sales of finished goods. Cash conversion cycle (CCC) has been considered a useful measure of firm's effective working capital management and especially the cash management. Deloof (2003) found that the longer the time lag, the larger the investment in working capital. A long cash conversion cycle might increase profitability because it leads to higher sales. However, corporate profitability might decrease with the cash conversion cycle, if the costs of higher investment in working capital rise faster than the benefits of holding more inventories and/or granting more trade credit to customers. The management of working capital may have both negative and positive impact of the firm's profitability, which in turn, has negative and positive impact on the shareholders' wealth. The present study seeks to explore in detail these effects.

Review of Relevant Literature

Various studies have been conducted with the aim to look into the association of the WC management efficiency as measured by the cash conversion cycle and other proxy variables with the size and profitability of the firm. These studies concluded mixed results regarding the WC management efficiency. Some of them indicated positive effects; others indicated negative effects and the third group concluded no effect. This may be because of the fact that there are some differences in the environment of research, sectors, period of analysis and statistical methods used. Conclusions of some recent studies in this regard are given below:

Panigrahi (2013) after studying, how cash conversion cycle affects the profitability of cement manufacturing companies in India, has concluded that the selected companies are having low average return on asset and return on equity with significantly negative cash conversion cycle. If the firm is able to sell the inventory and collect the receivables before it pays to the payables, then the situation would be little bit different.

On the other hand, Nobanee (2009), while investigating on the 5802 US firms has found a significant positive relationship between an optimal cash conversion cycle and operating income to sales. According to his study, shortening the cash conversion cycle could harm the firm's operations and reduces profitability. This could happen when taking actions to reduce the inventory conversion period, a firm could face inventory shortages; when reducing the receivable collection period a firm could lose its good credit customers; and when lengthening the payable deferral period a firm could harm its own credit reputation.

Pakistani Perspective about Cash Conversion Cycle

Raheman and Nasar (2007) have studied a sample of 94 Pakistani firms that how the liquidity position affects the profitability of the firms in manufacturing sector. According to the study, there exist a negative relationship between measures of the liquidity i.e. CCC, Inventory Turnover, Average Collection Period, Average Payment Period with that of the profitability of the firms. They have also shown that size of a firm has significant positive relationship with net operating profitability of the firms.

Raheman and Afza (2010) have investigated the relationship between measures of working capital management practices and financial performance of the firms while studying Pakistani panel data of 204 firms listed on KSE. Their results also support the research of Raheman and Nasar (2007) that there is a significant negative relationship between Cash Conversion Cycle and net operating profitability of the firms.

Afza and Nazir (2008) have also studied the factors determining the working capital requirements for a large sample of 204 firms in sixteen manufacturing sub sectors during 1998-2006. Another study by Afza and Nazir (2007) investigated the relationship between aggressive and conservative working capital policies for a large sample of 205 firms in 17 sectors listed on Karachi Stock Exchange during 1998-2005. They found a negative relationship between the profitability measures of firms and degree of aggressiveness of working capital investment and financing policies.

A research conducted by Jamil et al. (2015) also concluded that the measures of the Working Capital Efficiency like Cash Conversion Cycle and current ratio have a negative relationship with that of profitability as measured by the Net Operating Profit (NOP). They also studied its impact on Earnings before Interest and Taxes (EBIT) but found it insignificant for the sample studied.

Foreign Countries Perspective

Gill et al. (2010) investigated and found a statistically significant relationship between the cash conversion cycle and profitability, measured through gross operating profit and concluded that the managers can create profits for their companies by handling correctly the cash conversion cycle and by keeping accounts receivables at an optimal level. However, in accordance with the study of Nobanee (2009), they found a positive relationship between cash conversion cycle and gross operating profit.

In another study, Autukaite and Molay (2013) analyzed whether cash holdings and working capital management influence a company's value. Using a sample of 267 French listed companies over the period 2003–2009, they performed panel data regressions and found that shareholders undervalue an additional euro invested in net working capital and cash holdings.

Deloof (2003) found that the longer the time lag, the larger the investment in working capital. A long cash conversion cycle might increase profitability because it leads to higher sales. However, corporate profitability might decrease with the cash conversion cycle, if the costs of higher investment in working capital rise faster than the benefits of holding more inventories and/or granting more trade credit to customers.

Jamil et al. (2015) has also concluded that the firms in manufacturing sector will be able to increase their Net Operating Profit with increased efficiency of the Working Capital. Their study shows light to the managers in finance sections for better understanding of the factors affecting working capital efficiency and basics of the strategy that must be adopted for optimal liquidity levels in order to increase profitability of the firms.

Conclusions

The above quoted studies have proved that measures of liquidity and working capital like cash conversion cycle has a significant relationship between profitability of manufacturing firms in Pakistan. However, there are multiple views whether this phenomenon has positive or negative relationship. Whereas, most of the studies have shown a negative relationship between the two variables therefore, we conclude that in Pakistani context the cash conversion cycle has a negative relationship between performances of the manufacturing sector firms.

Future Recommendations

In future, the study may be extended to compare the sector wise profitability of firms and its relationship with cash conversion cycle. Furthermore, performance in various economies of the world may be compared with each other to find the differences in firms' performance in different societies.

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