Impact of Cash Conversion Cycle on Firm’s Profitability

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Abstract: Cash Conversion Cycle (CCC) is the most widely used evaluation method to measure the risks and returns associated with liquidity management and profitability. Since corporate companies are extremely concerned about how to sustain and improve the profitability they have to keep an eye on the factors influenced the profitability. Therefore the main purpose of the study is to identify the impact of CCC on profitability used companies in Sri Lanka. For this purpose data were collected from twenty listed companies in the Beverage Food and Tobacco industry sector covering the period from 2015 to 2017. The profitability of companies was measured in terms of Return on Equity (ROE) and Return on Assets (ROA) taking into account two years period from 2015 to 2017 the CCC was by Inventory Conversion Period (ICP), Debtor Conversion Period (DCP), and Payable Conversion Period (PCP). In this study, regression and correlation statistical techniques were used to estimate the relationship between CCC and profitability. Results revealed that ICP and DCP has positive strong relationship with the profitability. Further the study found that the PCP are negatively affected to the ROE and ROA. According the study reveals that CCC negatively correlated with the profitability and CCC has significant impact on profitability. These results suggested that managers can create value for their shareholders by reducing the number of days of account receivables and inventories to a reasonable extend.

Keywords: Cash Conversion Cycle, Return on Assets, Return on Equity, Listed Companies, Working Capital Management.

I. INTRODUCTION

Working capital management (WCM) is considered as the lifeblood of a business. WCM is a very significant component of business finance because it directly affects the liquidity and profitability of the company. The management of working capital plays a significant role in a company’s survival and growth. Working Capital (WC) is required for functioning day to day transactions smoothly. In order to manage WC effectively a firm has to be aware about the CCC. Therefore, the CCC, is the most significant part of WCM and it indicates how long it takes to convert their goods and services into cash. It helps to protect liquidly power which is the main factor on profitability.

Besides, most of the managers’ decisions are depended on firms’ financial performance. Therefore they always try to increase profit from many sources. And they ignore the impact of CCC on profitability. But they must think that how the changes in CCC impacts on the profitability since it is an important component of WCM. The previous research findings have been shown the different opinions regarding the Beverage Food and Tobacco companies in connection with CCC.

II. LITERATURE REVIEW

Management of liquidity and profitability can be changed on CCC. Early work done by “Ref [24]” if the firm deduction its liquidity the profitability would be high. Management of the liquidity and profitability has set in a crucial effect in todays competitive. As the results represent that there is a negative between profitability and liquidity.

“Ref [24]” as stated by True and Solono, (2007) investigated the impact of WCM on the firms’ profitability of a sample of small and medium sized Spanish firms. They based that managers can build value by deduction their inventories and the number of days for which their accounts are arrears. Besides, abbreviation the CCC also develops the firms’ profitability.

“Ref [8]” reported that the firms’ profitability and liquidity are affected by WCM in his analysis. Pooled data are selected for carrying out the research for the era of 2006-2008 for assessing the companies listed in stock market of Vietnam. He focused on the variables that include profitability, conversion cycle and its related elements and the relationship that exists between them. From his research it was found that the relationships among these variables are strongly negative. This denotes that decrease in the profitability occurs due to increase in CCC. It is also found that if the number of days of account receivable and inventories are diminished then the profitability will increase numbers of days of accounts receivable and inventories.

III. METHODOLOGY

In this study, twenty Beverage Food and Tobacco companies listed in CSE are taken to find the effect of CCC on profitability. For this purpose, the researcher used secondary data from financial statements covering 2015 and 2017. Regression analysis is used to examine the impact of CCC on profitability. The following linear regression models was applied in this study to investigate the relationship between CCC and profitability.

\[ \pi = \alpha + \beta_1 \text{ICP} + \beta_2 \text{DCP} + \beta_3 \text{PCP} + \epsilon \]
Accordingly two regression models were developed.

• Model 1: \( \text{ROE} = \alpha + \beta_1 \text{ICP} + \beta_2 \text{DCP} + \beta_3 \text{PCP} + \varepsilon \)
• Model 2: \( \text{ROA} = \alpha + \beta_1 \text{ICP} + \beta_2 \text{DCP} + \beta_3 \text{PCP} + \varepsilon \)

In the regression model, \( \alpha \) denotes constant and \( \beta \) denotes the coefficient of variables. ICP denotes Inventory conversion period and, DCP denotes Debtor conversion period and PCP denotes Payable Conversion Period. ROA denotes the Return on Assets and ROE denotes Return on Equity. \( \varepsilon \) denotes error.

IV. RESULT AND DISCUSSION

The study used 0.01 and 0.05 significant level to run the regression towards identifying the relationship between CCC and the profitability of Beverage Food and Tobacco companies listed in CSE for the period of 2015 and 2017. According to the results it can be concluded that the selected variables have significant impact on the profitability determination. The table 3.1 (see annexure 1) shows the summarized findings of the regression analysis. R squared value represent the explanatory power of the independent variable and strength of the effect. This study shows the R square between ICP, DCP and PCP of the selected firms to ROE as .602 and ROA as .351. The meaning of that, 60 percent of ROE and 35 percent of ROA is determined by the CCC.

According to the findings of the regression, ICP shows the impact on profitability of Beverage Food and Tobacco firms (ROE: \( \beta = .072, P = .000 \), ROA: .001, \( P = .000 \)). The results indicated that if ICP increase, from one day ROE and ROA increased by 0.072 and .001 when other variables are constant. DCP also have impact on profitability (ROE: \( \beta =126.377, P = .000 \), ROA: \( \beta = .124, P = .021 \)). That indicates that if DCP increase, from one day ROE and ROA increase by 126.377 and 0.124 when other variables are constant. PCP also have impact on profitability (ROE: \( \beta =-243.843, P = .039 \), ROA: \( \beta = -1.605, P = .046 \)). In turn if the PCP decrease, from one day ROE and ROA decrease by -243.843 and -1.605 to the extent other variables are constant. Therefore when ICP and DCP increase profitability increase and when PCP decrease, profitability decreases. The regression results emphasized that there is an impact on profitability from ICP, DCP and PCP. It is the control variable of the study. Therefore it can be said that the findings of the study are not manipulated by extraneous variables.

V. CONCLUSION

By considering the research findings; ICP, DCP, PCP concluded that independent variables are positively and negatively related with the ROA and ROE. Regression coefficients of this study disclose statistical significance. Furthermore, results reveal that ICP, DCP and PCP effect on profitability. “Ref [22]” concluded that by reducing inventory conversion period, accounts receivable period, and by increasing accounts payable period profitability can be increased. This study have found negative and positive relationship between CCC and profitability using similar variables and found the same results. The study suggests that CCC as a significant part of the WCM should be managed property in order to maintain the profitability of companies of a satisfactory level.

REFERENCES


**APPENDIX**

<table>
<thead>
<tr>
<th>Model 1(ROE)</th>
<th>Model 2(ROA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSq = 0.602, F = 18.123, P = .000</td>
<td>RSq = 0.351, F = 10.491, P = .000</td>
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<tr>
<td>B</td>
<td>Std. Error</td>
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<tr>
<td>---</td>
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<tr>
<td>Constant</td>
<td>51.617</td>
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<tr>
<td>ICP</td>
<td>0.072</td>
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<tr>
<td>DCP</td>
<td>126.377</td>
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<tr>
<td>PCP</td>
<td>-243.843</td>
</tr>
</tbody>
</table>

Table 1: Regression Analysis

n = 40

Source: SPSS data