The Impact of Capital Expenditure on Working Capital Management: Evidence from the Listed Manufacturing Companies in the Colombo Stock Exchange (CSE)

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Abstract

The study investigated the effect of capital expenditure (CE) on working capital management (WCM) using quarterly financial data of 30 selected listed manufacturing companies in Sri Lanka during the period of 2014 to 2018. The Net liquidity balance (NLB), working capital requirement (WCR) and cash conversion cycle (CCC) were utilized as proxies for WCM and pooled least squares regression analysis model was used analyzing the relationship between CE and WCM. Based on three different models, six different hypotheses were tested. The effect of CE financial expenditure and operating expenditure on NLB were investigated as the first model and secondly the effect on WCR and CCC was investigated. The significant negative relationship has been identified between NLB and CE, which implies that these firms do not strive increasing the balance of most liquid assets when facing with CE since firms use debt or bank overdraft as firms don't have enough internally generated funds to be used in long term fixed investments. Further, the insignificant relationship between operating working capital and CE was found. Based on the investigation, managerial implications of the manufacturing companies have to consider the trend of CE in managing WC and establish trade between CE and WCM in order to enhance long term profitability through fixed asset investment while ensuring smooth functioning of company's liquidity activities without incurring any liquidity risk.

Keywords: *Capital Expenditure, Cash conversion cycle, Liquidity balance, Working capital management*

1. Introduction

Investments procuring fixed assets, which remain in use for a longer period are needed in every business along with funds for short term purposes to finance current operations. The Working Capital can be categorized, as funds needed for carrying out day-to-day operations of the business smoothly. The management of the working capital is equally important as the management of long-term financial investment. Accordingly, WCM is a mandatory requirement for all firms irrespective of the size and the country (developed and emerging) in which they are operating, it is significantly important to the firms operating in the developing countries Shermila (2013).

Due to growth of opportunities in an industry, CE is more likely to be increased but it happens only when the firms have required funds for investment) Gitau (2012). In this study, efforts are made to find out whether the funds generated by firm operations and short term financial liquidity in manufacturing companies are enough to be used in such big investments. Sri Lankan manufacturing companies generally operate on a deficit-credit basis, and as a consequence, they depend on non-spontaneous sources for financing their trade deficits. In practice many of these companies find it difficult to manage working capital efficiently due to corporate complacency and uncertainty in economic conditions. Furthermore, efficient WCM of a firm can generate a handful amount of most liquid assets to be used in such activity.

Based on that, the study is conducted to investigate the impact of capital expenditure on working capital management in manufacturing industry in Sri Lanka as well as with high growth opportunities in future expansions as stated at the beginning of this chapter. It is necessary for manufacturing firms which are going for huge capital investments to identify the impact of such capital investment on their working capital management. High level of capital investment reduces the firm's internal fund with lower liquidity position which may eventually place the firm in unpredictable condition. Giving priority to fixed assets investments, they will make risk on operating activities of the business through creating cash problems. Therefore, capital expenditure has a huge impact on working capital Appuhami (2008). In this study, it is argued that fixed assets investments and working capital management are two big financial planning which interrelated with each other and the relation between them is attempted to be determined.

The primary research question of this study is to find out "How capital expenditure impacts on working capital management in Sri Lankan manufacturing companies". The main objective of this study is to identify the impact of CE on WCM. As specific objectives of the study, followings have been developed.

- To find out the relationship between CE on liquid working capital of listed manufacturing companies in CSE.
- To find out the relationship between CE on WCR of listed manufacturing companies in CSE.
- To find out the relationship between CE on cash conversion cycle of listed manufacturing companies in CSE.

The remainder of this article is organized as follows. Section 2 reviews the existing literature on CE and WCM and develops hypotheses. Section 3 covers the research method. Section 4 discusses the results and Section 5 concludes with major findings.

2. Literature Review

2.1. CE and WCM

Efficient corporate finance working capital plays a vital role. The reason for this is that WCM directly affects the liquidity and profitability of a company. WCM is about maintaining an optimal balance between the individual working capital components: receivables, inventory and payables (Nazir and Afza, 2009). Further Perera and Wickremasinghe (2010) found that most of the manufacturing companies in Sri Lanka have an informal policy related to WCM and the sales growth and profitability are found to be the major determinants of WCM in Sri Lanka. Successful management of these components largely influences the performance of a company. According to the study, working capital is related to various elements in company's operational activity management (receivable management, inventory management, commercial credit management) in a remarkable way. The findings of the investigation reveal that through providing the most suitable level of current assets, company can increase profitability. In Sri Lanka, as stated in Higurala, et al., (2017) study, secondary data from 44 listed companies for 5 years (2011-2015) have been taken in order to derive empirically the relationship between WCM and firm value. Firm's performance and value will be measured by Tobin's Q ratio and WCM will be measured by CCC. Ordinary Least Square and fixed effects regression results showed a significant negative relation between working capital components and company's performance.

The importance of maintaining an appropriate level of working capital and its contribution to business survival is a concept that should be understood by every company. As explained by Appuhami (2008), the successful management of working capital is important for short run corporate solvency or the survival of any organization because efficient WCM will lead a firm to react quickly and appropriately to unanticipated changes in market variables, such as interest rates and raw material prices and gain competitive advantages over its rivals. To

maintain or to increase the scope of business operation, Celik and Boyacioglu, (2013) elucidated that making investment solely on current assets is favorable in terms of continuity of operating activities but it will be an obstacle for business, expanding possibilities through missing the investment opportunities. In the same way by investing only on fixed assets, it can jeopardize the continuity of operating activities of business through creating cash problem. Therefore, CE possesses a huge impact on working capital. Hence, to avoid the higher financing cost, the firm may increase the fund availability for capital investment by derogating the amount tied up in current asset (Afza & Nazir, 2009). Shulman and Cox (1985) concluded that based on their model as determining the necessity of working capital is more reliable than ratios in order to determine the firm's liquidity level. Classic ratios are not sufficiently considered in the firm's success and the classic net working capital cannot provide true measurement of liquidity. In that case, net operational capital is divided into two as NLB and WCR to analyze working capital more clearly. According to the Linda and Steve (2008) when measuring the liquidity of the company, the firm's operation can be divided into two; namely the financial component and the operating component. Then financial component of the firm is the NLB and the operating component is the WCR. NLB and WCR can be identified as form of proxies for the measurement of WCM.

Other than the growth, leverage and the size of a company, type, and size of expenditures such as finance and operating and CE, have different impacts on working capital Appuhami (2008). CE causes long-term obligations and brings future benefits to business firms. These expenditures reflect basic targets of a business unit and have important long-term impacts on its importance and they bring long-term benefits. In contrast, managerial mistakes in this field may cause huge expenditures over a long period of time. Proper control of CE is necessarily required before the expenditures are incurred. Managerial control involves receiving information on engineering estimates, expected sales volume, production costs and distribution and sales costs. Basically, management tends to make sure of improvement of financial status of business unit.

Appuhami (2008) examined the impact of firms' capital structure on the WCM of listed firms at Thailand stock market. The study found that the firms' CE has a significant impact on WCM; the control variable as operating cash flow has a significant relationship with WCM. Celik and Boyacioglu (2012) examined the impact of CE on WCM, the NLB and WCR are used in form of proxies for the measurement of WCM. The study concludes the negative but significant relationship of the NLB and WCR with CE. Further, in Sri Lankan context , as investigated by Priya (2019) there is an impact of capital expenditure on working capital management of 25 listed hotel and travel firms at Colombo stock exchange by using secondary data from 2012 to 2016.NLB and WCR are used as the proxies of the working capital management. The model only consists of the independent and dependent variables. Using multiple regression analysis,

this study investigated a significant negative relationship between the capital expenditure of firm with both NLB and WCR.

2.2. Development of Hypotheses

2.2.1. Net Liquidity Balance and Capital Expenditure

Liquidity working capital, known as NLB, provides a direct link to a company's liquidity position by measuring the company's ability to cover financial current liabilities using financial liquid assets Linda and Steve (2008). A company with more growth opportunity, high short-term investment and cash balances as a fluctuation of cash flows could be expected as the opportunities possessing a positive correlation with NLB. Thus, Positive connection between CAPEX and NLB is expected. Empirically, several literatures have considered the association between capital expenditure and working capital and they have discovered varied outcomes. As stated by Appuhami (2008), there is a positive connection between CAPEX and NLB. AS mentioned in (Ilyas, 2014), there is a negative connection between CAPEX and NLB. Some studies have indicated that there is no connection between CAPEX and NLB Muhammad and Syed (2015).

$H1_o$: Capital expenditure is not positively related to net liquidity balance

$H1_a$: Capital expenditure is positively related to net liquidity balance

2.2.2. Working Capital Requirement and Capital Expenditure

The operational component of a company's working capital is WCR, which is defined as the asset under operating minus of the investment liability Linda and Steve (2008) where the company has discovered CAPEX and growth opportunities. Company could delay the payments to the creditors and could accelerate the debtor collections which caused to have less amount of working capital. Expected CAPEX and WCR has a negative relationship. As stated by Appuhami (2008) there is a negative. Some studies have found that there is no connection between CAPEX and WCR Muhammad and Syed (2015). Based on the earlier argument, the hypothesis is as follows:

$H2_o$: Capital expenditure is not negatively related to net working capital requirement

$H2_a$: Capital expenditure is negatively related to net working capital requirement

2.2.3. Cash Conversion Cycle and Capital Expenditure

CCC is a powerful tool measuring how well a firm employs its WCM practices as well as an instrument determining the liquidity management and performance of a firm. Empirically, the association between capital expenditure and working capital based on the CCC has not been considered in literature. As CCC measures the operating side of the working capital management similarly as WCR Linda and Steve (2008). Further it is expected to have a negative relationship with CAPEX and CCC. Based on the assumption that a company could delay the payments to the creditors and could accelerate the debtor collections which caused to have less amount of working capital.

$H3_0$: Capital expenditure is not negatively related to cash conversion cycle

$H3_a$: Capital expenditure is negatively related to cash conversion cycle

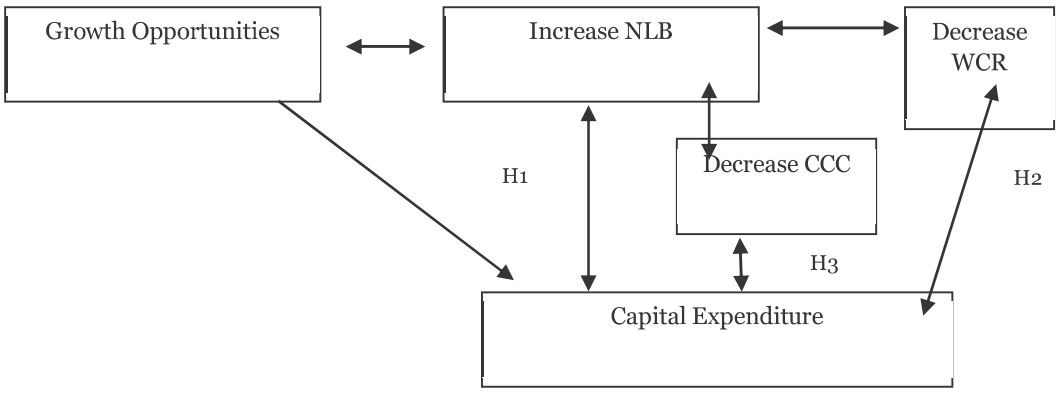

Figure 1: Hyphotheses Development

Source: Modified based on Appuhami, 2008

3. Research Methods

3.1. Sample, Data and Variables

Secondary data has been collected throughout the research study from the quarterly financial reports of 30 selected manufacturing companies in Sri Lanka listed under the CSE from 2014 to 2018. Least square method is used in order to measure the relationship between CE and dependent variables. To decompose the seasonal effect, the multiplicative method is used to adjust the seasonal effect due to growing opportunities and seasonality increase with time. The population of interest in this study constitutes all listed manufacturing companies quoted

at the CSE during five years from 2014 to 2018. The CSE is the main stock exchange in Sri Lanka. The reason for choosing this market is mainly due to the availability and reliability of the financial statements. In addition, in order to make the stock market more attractive, the stock market has an incentive to provide appropriate financial statements (Lazaridis and Tryfonidis, 2006). Out of 35 listed manufacturing companies, the researcher has collected data only from thirty (30) companies; 86% of the population. In order to ensure the accuracy of the data sample of the study, the firms that had continuously traded over the period from 2014 to 2018 is taken into consideration, and unchanged businesses during the specified investigation period and all the accounting variables required for the investigation have been taken. Therefore, firms possessing the following characteristics are excluded from the study. a) Financial reports and financial statements are not available b) Some values cannot be applied due to abnormal changes c) Some variables are not measurable in some companies.

CE is identified as the independent variable in the investigation and includes expenditures incurred by firm for acquisition and upgrading physical assets, such as land, buildings, machinery, vehicles equipment and intangible assets. In this investigation WCM was measured by NLB, WCR and CCC. Accordingly, NLB, WCR and CCC are identified as main dependent variables of the study in the investigation of impact of CE on WCM. OPEX, FINEX, DE, OCF, TOBIN'S Q,SG are considered as control variables of the study. Statement of financial position, income statement and cash flow statement are used for calculation of the control variables. NLB, WCR, CCC, OPEX, FINEX, CAPEX and OCF are indicated in (Rs.000‟) while TOBIN'S Q, DE and SG are indicated in ratios.

3.2. Model of Analysis

After conducting several statistical tests, only one fit model is taken for the investigation. The models consistent of the studies conducted by Appuhami (2008), Ilayas (2014),) Gitau (2012), and Raheman (2012). Specified three least square regression models are as follows:

NLBi= β1CEi + β2OPEXi + β3FIEXi + β4TOBIN'S Qi + β5SGi + β6D/Ei +β7OCFi + Ɛ……(Model 1)

WCRi= β1CEi + β2OPEXi + β3FIEXi + β4TOBIN'S Qi + β5SGi + β6D/Ei +β7OCFi + Ɛ ….(Model 2)

CCCi= β1CEi + β2OPEXi + β3FIEXi + β4TOBIN'S Qi + β5SGi + β6D/Ei +β7OCFi + Ɛ….. (Model 3)

4. Results and Discussion

4.1. Test of Descriptive Statistics

Table 1: Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Dev
Seasonal Adjusted NLB	600	-7536957.02	3136087.11	-230776.57	840684.58
Seasonal Adjusted WCR	600	-2782546.68	5030470.67	749040.64	953951.84
Seasonal Adjusted CCC	600	0.00	11350.28	192.8	663.717
Seasonal Adjusted OPEX	600	1912.72	1040182.24	121655.19	1912.72
Seasonal Adjusted FINEX	600	0.00	439250.71	251.56	42562.79
Seasonal Adjusted CAPEX	600	27.02	3834356.33	143388.8	363983.16
Seasonal Adjusted DE	600	0.0057	3.8	0.511	0.49
Seasonal Adjusted SG	600	-4.87	4.57	0.107	0.492
Seasonal Adjusted Tobin's Q	600	0.19	48.89	2.5	4.14
Seasonal Adjusted OCF	600	-2598004	3816466	150545.77	544590.86

NLB, has high variance of 840684.58 from its mean value. However, the NLB goes as high as 3136087.11 and as low as -7536957.02. High negative NLB values indicate that those companies have liquidity risk. It is also noted that WCR has a considerably mean value of 749040.64. The value of the WCR goes to highs of 5030470.67 and lows of -2782546.68. It is implied that some companies have more inventories and receivables than its payables (conservative working capital policy) while some companies have more payables (Aggressive working capital policy). According to descriptive statistics, mean value of CAPEX is 3834356.33 which denotes that manufacturing companies averagely invest in their fixed assets of 3834356.33 amounts. As companies required to pay interest on installment basis or some companies do not have debt liabilities, the finance expenditure could be nil.

4.2. Test of Multicollinearity

Table 2: Test of Multicollinearity

	NLB		WCR		CCC	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
Seasonal adjusted series for Tobin's Q	.849	.860	.849	.860	.849	.860
Seasonal adjusted series for OCF	.860	.993	.860	.993	.860	.993
Seasonal adjusted series for G	.993	.794	.993	.794	.993	.794
Seasonal adjusted series for DE	.794	.714	.794	.714	.794	.714
Seasonal adjusted series for CAPEX	.714	.524	.714	.524	.714	.524
Seasonal adjusted series for FINEX_1	.524	.488	.524	.488	.524	.488
Seasonal adjusted series for OPEX_1	.488	2.047	.488	2.047	.488	2.047

According to the above test, all independent and control variables do not have any Multicolinearity issues since all variables have VIF < 5 and mean VIF is around 1.5.

4.3. Correlation Analysis

The correlation matrix presented partial correlations by adjusting other variables that may influence the results. There is a very low correlation between the capital expenditure and CCC. This means capital expenditure and CCC have a slightly negative statistical relationship. But the correlation is not significant ($p = .214 > 0.05$) Further, the results of the correlation demonstrate positive correlation between capital expenditure and WCR as ($r = .115 < 0.5$) weak significant correlation exist. When capital expenditure increases, it will make the WCR to increase accordingly. However, the NLB has a negative moderate correlation with CAPEX. According to the correlation matrix, WCR has a very low insignificant negative correlation with Tobin's Q, operating cash flow and sale growth. On other hand, finance expense and operating expense have a positive significant correlation. Similarly, NLB has a significant correlation among all the control variables except sale growth. Also the ANOVA test shows all three models have the possibility of predicting their dependent variables; NLB, working requirement and cash conversion. According to table IV with a total of 600 observations, the pooled least squares

regression indicates that CE has a high significant negative relationship with NLB at 95% confident level.

Table 3: Correlation Matrix

		CAPEX	CCC	WCR	NLB	Tobin's Q	OCF	G	FINEX	OPEX
CAPEX	Pearson	1								
	Sig									
CCC	Pearson	-.051	1							
	Sig	.214								
WCR	Pearson	.115**	-.030	1						
	Sig	.005	.465							
NLB	Pearson	-.367**	.036	-.217**	1					
	Sig	.000	.384	.000						
TOBIN'S Q	Pearson	-.013	-.053	-.064	-.096*	1				
	Sig	.745	.196	.119	.019					
OCF	Pearson	-.005	-.062	-.052	.399**	-.043	1			
	Sig	.897	.131	.201	.000	.296				
G	Pearson	-.018	-.108**	-.005	-.016	-.001	.016	1		
	Sig	.653	.008	.902	.689	.978	.693			
FINEX	Pearson	.443**	-.090*	.198**	-.557**	-.023	-.126**	.057	1	
	Sig	.000	.028	.000	.000	.568	.002	.161		
OPEX	Pearson	.504**	-.115**	.279**	-.351**	-.037	.175**	.019	.623**	1
	Sig	.000	.005	.000	.000	.360	.000	.641	.000	

The regression coefficient of CE is -0.304 with a P- value of 0.00($P<0.05$). These findings accept the $H1_0$ hypothesis, thus accepting it. This is against the findings of Appuhami (2008), in which he found that NLB is positively related to CE at 1% of significance, in a study which was conducted in Thailand Stock Exchange listed companies. Sri Lankan Manufacturing firms have tendency to invest in CE using the debt equity. Most of the companies used short term debt as CEs. Hence, it could result the decrease of NLB by increasing short term debt and other creditors.

In addition to CE, operating expenditure, finance expenditure, debt to equity ratio and operating cash flow have significant relationships with NLB at 0.5 confident level While operating cash flow has a positive relationship with coefficient of 0.514 and p-value of (0.000). However, Tobin's Q and sale growth do not show any significant relationship with NLB ($P> 0.05$).

Further CE does not have a significant relationship with WCR at 0.5 confident level. P value is 0.313. Based on the test results, it is proved that, CE cannot be recognized as a significant factor

in predicting WCR. Similarly results have been obtained in the two studies Muhammad and Syed (2015). It means investment in CE with the purpose of getting profit from growth opportunities of manufacturing companies does not have any impact on WCR. These findings favor with hypothesis $H2_o$.Therefore hypothesis $H2_o$ is need to be accepted; CE is not negatively related with WCR. WCR has an insignificant relationship with CE. However, operating expenditure and operating cash flows have a significant relationship with WCR. Operating expenditure is positively related to the WCR with regression coefficient of 2.022 and P value of 0.000 ($P< 0.05$). Table III shows that companies tend to increase their WCR with increase in operating expenditure. This shows that when the firms have obligations to pay the administrative expenditure, they usually try to maintain high level of CA (current assets) or liquid assets.

In this study, Model (3) shows the regression model of cash conversion cycle with independent variable and control variables such as CE, operating expenditure, operating cash flow, financial expenditure, Tobin's Q, debt to equity and sales growth. According to table III , CE does not have a significant relationship with WCR at 0.5 confident level. P value is 0.797. Based on that, test results have proved that, CE could not be recognized as a significant factor in predicting WCR and similar results have been obtained by WCR. Hence, both CCC and WCR measure the operating liquidity and similar results have been expected. As this is a newly added dependent variable, there is no previous studies for comparison. However, sale growth and debt to equity ratio have a significant relationship with WCR. Both variables are negatively related to the cash conversion cycle with regression coefficient of -140.3 and -159.5 P value of 0.01 and 0.009 ($P< 0.05$). It causes decreasing the number of days of accounts receivable as credit sales is a denominator of the equation. Hence, number of days of accounts receivable would decrease which ultimately cause the decrease of cash conversion cycle. These findings are against with hypothesis H3, therefore the hypothesis will be rejected. Other variables such as operating expenditure, finance expenditure, Tobin's Q, debt to equity ratio and operating cash flows do not have significant relationships with cash conversion cycle at 0.5 significant level.

This study investigates the impact of working capital which is measured by NLB, WCR and CCC on the CE. The study finds a relationship between the CE and NLB which is consistent with the studies conducted by Ilayas (2014) Gitau (2012) Raheman (2012) and Priya (2019) in which the regression results point out a significant negative relationship between CE and NLB. But the previous study of Celik (2013) and Appuhami (2008) argued on this. They concluded that NLB of a firm can be improved by investing the CE. However, as a practice management of manufacturing firms tend to get short term loan or other financing facilities to fund the CE as they are easy to obtain and less convergent compared to the non-current liabilities. Hence it also caused the decrease of NLB by increasing the debt to equity ratio.

Table 4: Regression Analysis

	NLB (Model-1)				WCR (Model-2)				CCC (Model-3)			
	Unstandardized Coefficients		t	Sig.	Unstandardized Coefficients		t	Sig	Unstandardized Coefficients		t	Sig
	B	Std. Error			B	Std.Error			B	Std.Error		
(Constant)	201038	40526.30	4.96	.00	627197	62483.80	10.03	.00	357.58	44.78	7.98	.00
Seasonal adjusted Tobin's Q	363.35	6329.50	.05	.95	-7321.8	9758.9	-.75	.45	-2.45	6.99	-.35	.73
Seasonal adjusted series for OCF	.51	.04	10.70	.00	-.20	.07	-2.78	.00	-8.28	.00	-1.56	.12
Seasonal adjusted series for SG	-6464.50	49281.70	-.13	.89	-22321	75982	-.294	.77	-140.00	54.46	-2.57	.01
Seasonal adjusted series for DE	-44409	55427.50	-8.01	.00	-131521	85458	-1.54	.12	-159.55	61.25	-2.60	.01
Seasonal adjusted series for CE	-.30	.08	-3.87	.00	-.12	.12	-1.00	.31	2.23	.00	.25	.79
Seasonal adjusted series for FINEX	-6.60	.78	-8.42	.00	.48	1.21	.40	.69	.00	.00	-.39	.69
Seasonal adjusted series for OPEX	-.59	.23	-2.57	.01	2.02	.36	5.64	.00	.00	.00	-1.41	.15
Adjusted R Square		0.715				0.311				0.204		
Regression		0.000b				0.000b				0.001[b]		

Further the results show that companies tend to decrease their NLB increasing in financial and operating expenditure. This shows that when the firms have obligations to pay the interest expenditure and other operating expenditure, companies usually try to reduce the short term investment and even get bank overdraft to pay such expenditures.

Result from regression model 2 suggests an insignificant relationship between CE and WCR. The result is consistent with the prior studies of Muhammad and Syed (2015). On the contrary, the finding is opposed to the prior studies of Raheman Nasr (2007). Ilayas (2014) Gitau (2012) Raheman (2012) and Priya (2019). Similar result has been obtained between CE and CCC. CCC is used as a proxy of working capital according to Linda and Steve (2008)'s argument. A measure of operational liquidity to a dynamic measure of liquidity expressed in WCR. The liquidity of these assets and liabilities in an ongoing operational environment have been carried out. Taking into account in dynamic settings, it is possible to see that WCR is directly related to CCC. CCC measures time within a few days, it takes the company to convert the cash spent to purchase inventory for sale into collected cash from the business sales. Hence CCC is a more reliable measure of operating liquidity than WCR. Linda and Steve (2008). However, the expected relationship could not be founded. In practical condition, even though the company has acquired the property plant and equipment they couldn't delay the payment to the trade creditors and increase the collection from the receivables. A sector like manufacturing the

industry is built with the network of many parties. Among them, suppliers and customers are the key factors of sustainability of a firm. Thus, these operating liquidity factors could not be adjusted due the investment decisions in an industry like manufacturing as well as in a country like Sri Lanka.

Manufacturing firms require capital assets for their operations and that need is essential for the future growth of the company. Meanwhile as industry average in a manufacturing firms more than 50% of assets represent by the current assets. Hence for manufacturing company, it is critical to have tradeoff between these short term and long term investment. Otherwise company would face liquidity problem which lead to bankruptcy of firm Shermila (2013).

5. Conclusion

The results of this study denote that CE has a highly significant impact on WCM liquidity component as CE is negatively related to the net liquidity. This result is conflicted with the findings of Appuhami (2008) in Thailand where the positive relationship has been found between CE and NLB and negative relationship with WCR. This can be due to the fact that, the NLB growth would be insignificant as the growth is not at the required expected level, the firms could not be able to make investment in capital asset with the low level of liquid assets.

The insignificant relationship in WCR and CE indicates that WCR would not have impacted on investment in CE since industry with highly depending on inventory, receivables and creditors, the capital investment couldn't influence the operating liquidity of the firm. Cash conversion cycle is also found a same statistical result as WCR. In addition, investigation found that some other variables were also significantly related to WCM. Among them operating expenditure, operating cash flow and financial expenditure have strong significant relationship with WCM. In addition to that, it is investigated that some other variables like operating expenditure, finance expenditure, debt to equity ratio and operating cash flow have significant relationships with NLB. Also the operating expenditure and operating cash flow have a significant relationship with WCR while debt to equity ratio and sale growth have a significant relationship with cash conversion cycle. On the basis of the findings of the research, it can be concluded that, CE has significant impact on WCM in manufacturing companies in Sri Lanka in liquidity perspective.

Future research plan is recommended for other researchers to include other sectors of Colombo Stock Exchange for this type of study and investigate the relationship between CE and WCM. By conducting the same study on each business sector separately, managers can understand specific behavior of company's working capital in relationship with CE. Apart from that, future

researchers and academics can test the same variables in small and medium enterprises and private limited companies focusing on their entrepreneurial activities and operations.

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