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Cash Conversion Cycle and Firm Liquidity Analysis for Consumer Product Sectors in Malaysia

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Abstract:

The present paper seeks to examine the relationship between cash conversion cycle and liquidity of Malaysia firms in consumer product sector for a period of 10 years with a total of 550 observations. This issue is crucial to be measured as it will identify whether firms efficiently manage their working capital or not. This study used panel data, correlation analysis and panel least square (Ordinary Pooled Least Square). The empirical findings suggested that liquidity of the firms has a statistically significant relationship with cash conversion cycle. During the period under study, the results on the relationship signified that the longer the period of cash conversion cycle, the higher the ability of the firms to convert their assets to cash, thus maximizes the shareholder's value. However, firm size has not significantly explained the variations in the liquidity of Malaysian firms, which acts as a control variable in this study. The study underscores the need for future investors as they need to reassure the position of particular firm as well as for firm managers to increase their shareholders value.

Keywords: Cash conversion cycle, liquidity, consumer product

1. Introduction

Most firms considered cash as the most liquid asset and it is a crucial component in the management of firm's operational processes especially for executing long term objective, as well as to become the top among competitors. A lot of firms choose to believe in the following decisions; capital structure, capital budgeting and working capital whereby working capital decision will affect the performance of firms generally in terms of liquidity which will reflect on profitability; thus, the level of competition in the market may increase (Al-Shubiri & Mohammad Aburumman, 2013). Working capital can be defined as the result of the time lag between expenditure for the purchase of raw materials and the collection for the sales of the finished product. The continuing flow of cash from suppliers to inventory to account receivables and back to cash is usually referred to as cash conversion cycle (CCC) (Zaryawati, Annuar, & Rahim, 2009; Nobanee, Abdullatif, & AlHajjar, 2011).

Each firm has to maintain its CCC level to avoid over- or under-investment that could affect firm performance. If firms choose to invest CCC in surplus, this will affect firm value negatively since it shows that the firm is not collecting cash efficiently to finance its operations. Such a firm is likely to entrust heavily on trade credit or borrowings. Conversely, under-investing in CCC inhibits the firms from realizing maximum returns on working capital which will restrain the firm's future growth opportunities and profitability (Mathuva, 2014). CCC can be calculated by using the following formula (Tripathi & Ahamed, 2016);

$$CCC = \text{Number of days of inventories} + \text{Number of days accounts receivable} - \text{Number of days accounts payable}$$

Seeing that CCC relates to liquidity, we use consumer product firms as the sample since none of the previous studies had used this sector as their sample. Consumer product firm is selected because this sector consists of 129 companies listed in Bursa Malaysia stock exchange; however, in the top 30 of KLSE stock market, there is only 2 of them namely; (1) British American Tobacco (Malaysia) Berhad; and (2) PBB Group Berhad. This attracts the researcher to investigate how and why only 2 of them are listed. This is because based on the data provided by Bursa Malaysia, a majority of consumer product firms have managed to give out their dividend of stocks at the highest value in 2016. This indicates that although there are only 2 companies listed in the top 30 of KLSE, their dividend of stocks is excellent and high enough to attract more investors. This is also a sign that their management of working capital may be strong based on their high dividend history. Despite that, Figure 1 portrays that there is instability occurring in consumer product firms in the past 6 months of which could explain the result that only 2 of them were listed and how it affected the dividend in

2017. Hence, this study will clarify the relationship between CCC and liquidity based on consumer product firms listed in Bursa Malaysia as to make it clearer.

Generally, liquidity is used to measure the capabilities of a firm to pay the debts as well as the obligations to meet with short-term obligations (Iqbal & Zhuquan, 2015). Hence, it is vital for firm manager to keep an optimum level of current assets to its total assets. If firms do not manage their working capital as in CCC effectively, the productivity of the firm will be distracted and they might not be able to fulfill their short-term obligations. Therefore, this paper will explore the relationship of CCC with liquidity which may affect the overall performance of the firm.

Most studies in the past focused on data that were based in North America, South Asia, West Asia and other countries due to their big role in the economy. It serves as a benchmark for everything especially when it comes to cash conversion cycle. It is rare to find any studies conducted in Southeast Asia especially in Malaysia. Moreover, previous authors did not show any interest to investigate the relationship of CCC with liquidity in consumer product firms. Most of them focused on manufacturing, retail, ware house industry since their inventory cycles are more frequent.

2. Literature Review

Cash to cash acts as the new supply chain management metric or the other name is CCC since majority of the companies use this method to measure their liquidity performance. As for accounting purposes, the metric can be used to help measure liquidity and organizational valuation by reflecting the net time interval between actual cash expenditures for the purchase of productive resources and the ultimate collection of receipts from product sales. As for supply chain management activities, it serves as a measurement bridging the processes into and out of the firm. Besides that, there are three primary leverage points to manage CCC metric within the firm which are extend average account payables, decrease inventory days of supply as well collection of account receivables (Farris & Hutchison, 2002). A study conducted in Jordan used a quantitative methodology analysis which focused on the industrial sector listed in Amman Stock Exchange (ASE). It involved 11 industrial sectors such as chemical industries, electrical industries, tobacco and cigarettes sector and others. In that paper, the period was from 2005 until 2011 which means 7 consecutive years. They also used empirical methodology to the hypothesis which is null hypothesis and alternate hypothesis. The null hypothesis indicated that there is no statistically significant relationship between CCC and Liquidity Index while the alternate hypothesis stated that there is a statistically significant relationship between CCC and Liquidity Index. The proxy used is Current Ratio since it has been used heavily in the analysis of financial statement of companies. The result found that there is a statistical significant and positive relationship between CCC and Liquidity Index (Al-Shubiri & Mohammad Aburumman, 2013).

Next, the author analyzed CCC as an indicator of the company's liquidity as well as to determine the relationship between CCC with the Current Ratio and Quick Ratio for food industry in Greece. The food industry was selected due to the fact that it is the most crucial and representative sector of Greek business and the sample companies were the largest companies stated by the ICAP directory's satisfaction. This study examined 200 companies and the final sample contained only 82 companies. CCC should show a smaller value to indicate there is more liquid in the firm because the firm can recover its cash from the sales of its product. The hypothesis expected that there is no linear relationship between current ratio and quick ratio with CCC and vice versa. Final result obtained showed a significant positive relationship between CCC with Current Ratio and Quick Ratio which means that the study rejected the null hypothesis. However, the author concluded that the positive relationship between CCC with Current Ratio and Quick Ratio could lead to future liquidity problems because it could imply higher investment on working capital (Lyroudi & Lazaridis, 2000). Studies conducted in the U.S.A investigated the relationship between cash conversion cycle and liquidity management of small firms in a sample of 879 U.S.A small manufacturing firms and 833 U.S small retail firms. Firms with more efficient CCC tend to be more liquid; thus, the firm owner may be reactive in managing CCC. Therefore, the study emphasized CCC as a proactive management tool for small firm owners. Longer CCC will enable firms to have

larger working capital investment; therefore, there will be more cash constrained. The study plotted that small firms with shorter CCC will be more liquid.

Firms were selected based on the data availability from 2002, 2003, and 2004 (the most recent three years in the data set), manufacturing and retail SIC codes and less than \$20 million in revenues. Liquidity was measured as net balance position which is absolutely different from traditional usage of liquidity ratios. This is because net balance position is an estimate of the cash excess or shortage a firm has after financing its fixed asset and working capital needs. As a conclusion, the result indicated a negative and significant effect on liquidity. In other words, when CCC is shorter, the liquidity of the small firms will be increased. By effectively managing the CCC, higher liquidity will lead to higher profitability while at the same time, risk is reduced (Ebben & Johnson, 2011).

In addition, a research based in Russia showed a positive and significant relationship between CCC and liquidity in which it was conducted in various economic activities such as manufacturing, transport, electric power industry, trade and many more for a period of 12 years from 2001 to 2012. The author also mentioned if the value of CCC exceeds the upper limit of the calculated optimum interval, a company carries out a conservative working capital management which means the company maintains excessive level of current assets and current liabilities. Not only that, any adjustment of CCC and liquidity (current ratio) should be appropriately made according to working capital elements which can be done through calculating CCC, current assets and current liabilities (Garanina & Petrova, 2015). Few researchers chose to make a comparison between static measures of liquidity (current ratio or quick ratio) and dynamic measures of liquidity (net liquid balance). However, since this research only focuses on current ratio, hence the result of static measures will only be taken into consideration. The study found a negative and significant relationship between CCC and liquidity of restaurants among restaurants franchisors, but a positive and significant relationship between CCC and liquidity among manufacturing firms (Canina & Carvell, 2008).

3. Data and Methodology

The data involved 129 consumer product firms in various fields such as mining, beverages, peanut oil and many more listed in Bursa Malaysia. However, only 75 firms were selected to be used as sample. The independent variable is CCC while the dependent variable is liquidity. The proxy for CCC is $DSO + DSI - DPO$ while liquidity is using Current Ratio (CR). The variables are tested to identify the relationship and influences between them. The duration was from 2007 to 2016 after taking into consideration the availability of the data. Panel data analysis via E-Views program was deployed in this study.

3.1. Descriptive Statistics

Descriptive information is used to enable the researcher to describe and compare variables numerically. Not only that, it will also make it easier to study and describe what the data shows and reach to conclusion immediately.

	LQY	DSO	DSI	DPO	CCC	LNFS
Mean	3.183745	66.11273	119.4200	48.47029	137.0624	12.62436
Median	2.370000	58.00000	76.00000	35.25005	98.66588	12.45218
Skewness	3.101100	2.769925	2.190440	4.379374	1.546378	1.005767
Observations	550	550	550	550	550	550

Table 1: Statistical Summary of Dependent and Exploratory Variables

CCC is used as a proxy to monitor efficiency, leverage, growth as well as market share in managing working capital in most of the firms. The total observation of all variables was 550 observations which consisted of 55 firms over a period of 10 years. As shown in Table 2, the mean value of liquidity was 3.18 which is good since the indicator for good liquidity should be more than 1. Meanwhile, the median was 2.37 and the skewness was 3.10 which indicated that the graph skewed to the right. The average time taken to collect cash from account receivables was 66 days while the median was 58 days. Besides that, the mean value for the firms to sell their inventory was 119 days with the median of 76 days. The average value signified that it took a long time for the firm to sell and replace the inventory. Moreover, firms delay an average of 48 days to pay their purchases, bills, cost and more to their suppliers. In addition, the median was 35 days. The average time of cash conversion cycle was 137 days and the median was 99 days. All four variables skewed to the right based on the positive values which were 2.76, 2.19, 4.38 and 1.55. To check the size of the firm and its relationship with liquidity, the proxy used was natural logarithm of total asset as the control variable. The mean value of log total asset was 12.62 with the median of 12.45. The skewness was 1 which skewed to the right since the value was positive.

3.2. Econometric Specification

Specifically, the research model is expressed as follows:

$$LQY_{it} = \beta_0 + \beta_1 DSO_{it} + \beta_2 DSI_{it} + \beta_3 DPO_{it} + \beta_4 CCC_{it} + \beta_5 FirmSize_{it} + \mu_{it}$$

Where the following notation has been used:

LQY_{it} is the liquidity for company i at time t .

DSO_{it} represents days of sales outstanding for company i at time t .

DSI_{it} represents days of sales inventory for company i at time t .

DPO_{it} represents days of payable outstanding for company i at time t .

CCC_{it} represents cash conversion cycle for the company i at time t .

Firm Size μ_t represents firm size for the company i at time t .

μ_t is error term

John Maynard Keynes was the first economist who introduced "Liquidity Preferences Theory". He suggested that value of money is important in doing transaction of businesses as well as store of wealth. However, the New Monetary Economic further stresses that Keynesian theory of money is very uncertain; hence, it will not be good to a liquidity position of firms. This is because firms have to keep an optimal level of liquidity in case of three motives; transactionary motive, speculative motive and precautionary motive. In Keynes' theory of liquidity preference, the speculative motive for holding money is strictly related to the store of value function and related to investment purposes. Transactionary motive focuses on daily routine business transactions. Firms have to keep their liquidity at an adequate amount so that they can run their businesses normally. Meanwhile, precautionary motive is for liquidity to cover an unforeseen scenarios such as the firm is not able to pay its payable account (Cesarano, 2006). Therefore, this can also be applied to application of management of asset in a certain firm.

Previous studies showed that CCC and liquidity are significantly and positively related to each other which indicated that if CCC increases, then liquidity of the firm will increase too. But there is also a study that showed it can be significant but negatively related to each other. As for liquidity and firm size, none of the previous studies did a research between these 2 components (Lyroudi & Lazaridis, 2000; Ebben & Johnson, 2011).

Correlation analysis is conducted to compute the correlation between variables involved whether positively or negatively related. If increasing working capital management (CCC) will create a better liquidity position of the firm, one should expect a negative relationship between those variables and vice versa.

Correlation						
t-Statistic						
Probability	LQY	DSO	DSI	DPO	CCC	LNFS
LQY	1.000000					

DSO	-0.031441	1.000000				
	-0.736384	-----				
	0.4618	-----				
DSI	0.280538	0.141937	1.000000			
	6.841971	3.356654	-----			
	0.0000	0.0008	-----			
DPO	-0.210985	0.211824	0.346866	1.000000		
	-5.052779	5.073812	8.657432	-----		
	0.0000	0.0000	0.0000	-----		
CCC	0.348629	0.410669	0.876515	-0.003825	1.000000	
	8.707493	10.54362	42.62517	-0.089542	-----	
	0.0000	0.0000	0.0000	0.9287	-----	
LNFS	-0.192721	-0.288800	-0.253432	-0.070654	-0.320673	1.000000
	-4.597683	-7.061518	-6.132913	-1.658103	-7.925295	-----
	0.0000	0.0000	0.0000	0.0979	0.0000	-----

Table 2: Correlation Matrix for the Explanatory Variables

Based on table above, the result shows that days of sales outstanding, days of payable outstanding and firm size natural logarithm total assets stated a negative relationship which means when those three variables increase, it will have an impact on liquidity that is, it will decrease. This is somehow not a favourable situation for a firm since lower liquidity represents firm that does not have the ability to convert asset into cash easily and probably could not pay their debts. Moreover, only days of sales outstanding portrayed insignificant relationship with liquidity and the others are significant at 1% (p -value 0.000). Meanwhile, the other two variables, days of sales inventory and cash conversion cycle, were positively related. The correlation between liquidity and firm size natural logarithm total assets was negatively related which represented that the smaller the firm in Malaysia, the higher their liquidity abilities are.

The weakest correlation was between liquidity and days of sales outstanding with -0.031441 which indicated an insignificant relationship between them since the probability was 0.4618. The strongest correlation existed between liquidity and CCC with 0.348629 and the probability was 0.0000. This justifies that liquidity and CCC has a positive and strong significant relationship. Besides that, the magnitude between liquidity and days of sales inventory was 0.280538 which showed that both had quite a strong positive relationship and the probability was also significant at 1%. Meanwhile, the remaining days of payable outstanding and firm size natural logarithm of total asset showed negative relationship with liquidity because the values were -0.210985 and -0.19272. However, based on the probability value, both revealed that they had a strong negative and significant relationship with liquidity on the significant level of 1% with 99% interval level of confidence.

The regression coefficient β describes the change in Y that is associated with a unit change in X . Therefore, this explains the changes and influences by dependent variable towards independent variables. However, in this analysis, it is

divided into two sets of test. The first set of analysis is between liquidity and days of sales outstanding (DSO), days of sales inventory (DSI), days of payable outstanding (DPO) and firm size natural logarithm of total asset (LNFS). Meanwhile, the second set of analysis is between liquidity and cash conversion cycle (CCC) and firm size natural logarithm of total asset (LNFS).

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.907261	1.477756	5.350858	0.0000
DSO	-0.003755	0.002933	-1.280327	0.2010
DSI	0.009927	0.001127	8.807971	0.0000
DPO	-0.021093	0.002589	-8.147329	0.0000
LNFS	-0.367411	0.109480	-3.355973	0.0008

Table 3: The Regression Analysis

The regression results focusing on the relationship between firms' liquidity and the explanatory variables are presented in Table 3. It explains the relationship between days of sales outstanding (DSO) and liquidity level which is inversely related but not significant (p -value= 0.2010). Days of sales outstanding, also known as account receivables collection period, should be as low as possible. For instance, from 90 days to 60 days of credit term period. This is because by reducing the credit term period, firms manage to show high level of efficiency since they are able to collect their receivables account quicker. Thus, inversely related as shown in the result above indicates that the lower the days of sales outstanding, the higher the liquidity which is in line with the theory stated by Mcinnes (2000). Higher liquidity then will give benefit to the firm as it will have an adequate amount of assets to liquidate in case unforeseen circumstances occur. As mentioned by Keynes' in Liquidity Preferences Theory, one should keep money as for precautionary motives since it is unpredictable which is also applicable to cash management of firms as well (Cesarano, 2006).

However, the result above shows that it was not significant at 0.2010 which can be supported with the research done by Al-Shubiri and Mohammad Aburumman (2013).

The result signifies that there was a positive and significant relationship between days of sales inventory and liquidity; the higher the days of sales inventory, the higher the liquidity. As known, the higher the inventory turnover, the higher the liquidity is because firms achieve to convert their assets into sales very well as liquidity refers to the ability of converting assets into sales. High inventory turnover means firms are able to replenish their stocks with newer ones since the demand of their stocks is high. Not only that, by increasing inventory rotation through the selling of more assets, firms can reduce the number of product damages as well as minimize the cost. This claim can be supported by the study done by Al-Shubiri and Mohammad Aburumman (2013). This findings contradict with the opinions of Ebben and Johnson (2011) because higher inventory turnover could be used as an indicative of the overall management of the firm which can lead to higher efficiency in the firm.

In addition, the result reveals a negative and significant relationship between days of payable outstanding and liquidity; the lower days of payable outstanding, the higher the liquidity is. The significant level was at 1% with interval 99% of confidence level since the p -value was at 0.0000. This independent variable is closely related to account payable management. According to theory of CCC (McInnes, 2000), days of account payable should be higher as firms will delay their payment to the suppliers while waiting for their receivables and inventory to rotate.

The relationship between suppliers can be damaged when firms choose to delay payments to suppliers. However, this finding differs from the theory when firms choose to shorten their days of payable outstanding, thus liquidity of the firm will rise upwards. Liquidity of firm must be maintained at an optimum level which is more than 1 so that when firms encounter abrupt scenarios, they can face it with ease. As shown by the results above, negative relationship between days of payable outstanding and liquidity will represent an efficient working capital management. This also acts as a signal that firms have enough current assets to cover their current liabilities.

The last result for this set of test indicates the relationship between firm size natural logarithm of total assets and liquidity. The result depicted that there was negative and significant relationship; the smaller the firm, the higher the liquidity. The significant level was at 1% with interval 99% of confidence level since the p -value was at 0.0008. Smaller firms have the tendency to grow more compared to larger firms as they are more able to adapt to the ever-changing business environments (Afrifa & Padachi, 2016). Besides that, smaller firms have bigger opportunities to outperform larger firm especially when they are at a growing stage based on product life cycle theory. Not to forget, this finding portrays that it will attract future investors to venture into smaller firms because of the ability to grow, opportunities that smaller firms outperform larger firms and higher liquidity position. However, this will lead to lower profitability as they would use all their profits to expand more. This can be supported by previous studies (Eljelly, 2004; Afrifa & Padachi, 2016; Raheman & Nasr, 2007; Shin & Soenen, 1998) which found that the smaller the firm, the higher the liquidity; thus, the lower the profitability is. In conclusion, firm size natural logarithm of total asset does affect both relationship and influence towards liquidity.

C	5.079821	1.477998	3.436959	0.0006
CCC	0.008312	0.001095	7.588048	0.0000
LNFS	-0.240434	0.112306	-2.140888	0.0327

Table 4: The Regression Analysis

As shown in Table 4, it demonstrates the relationship between liquidity and cash conversion cycle as well as firm size natural logarithm total assets. Cash conversion cycle had a positive relationship with liquidity but firm size was vice versa. Both independent and control variables showed significant values with liquidity; however, cash conversion cycle was significant at 1% with 99% confidence level interval while firm size was significant at 5% with 95% confidence level interval. Cash conversion cycle showed a positive relationship with liquidity which indicated that an increase of cash conversion cycle by 1% will cause liquidity to increase at 0.008312 as well.

Cash conversion cycle or cash gap will portray how well firms manage their working capital and cash management which are very vital especially during decision making with regard to liquidity. This is because any changes in liquidity will give an impact towards other components of financial performance such as efficiency, leverage, growth, risk and most importantly profitability. Thus, since liquidity is a good measure of working capital management of a firm, this will automatically show that all selected product consumer firms in Malaysia are managing it well. This implies to three elements of cash conversion cycle which are account receivables, inventory in days as well as account payable in days. We can conclude based on the findings earlier that firstly account receivables should be shorter; for instance, from 90 days to 60 days credit term period via speeding up collections (Nobanee, 2011). By doing so, firms will be able to collect their receivables faster; hence, reducing cost of receivables management. Secondly, by increasing the days of sales inventory, the firms are able to replenish their stocks with newer ones since the demand of their stocks is high. Not only that, by increasing inventory rotation through the selling of more assets, the firms can reduce the number of product damages as well as minimize the cost.

Most firms chose to lengthen the payable deferral period by slowing down payments to suppliers (Nobanee, 2011) because they would want to receive income from receivables and inventory first. But this contradicts with the findings as firms should shorten their payable outstanding as it will bring more benefits to firm especially smaller firms because they need to gain confidence from their customer first. Thereby, these three elements will give a positive relationship to cash conversion cycle and liquidity; the higher the cash conversion cycle, the higher the liquidity. The result is in line with several previous researches (Al-Shubiri & Mohammad Aburumman, 2013; Lyroudi & Lazaridis, 2000; Garanina & Petrova, 2015; Canina & Carvell, 2008). However, as for the last author (Canina & Carvell, 2008), only restaurant franchisors and manufacturing firms were identical to this research which found positive and significant relationship. Even though previous research was not conducted in the same industry or region, the result obtained was similar; hence, firms must increase their cash conversion cycle period to enhance their liquidity position because the longer the cash conversion cycle, the higher the liquidity is. Nevertheless, there were also some cases that showed a negative and significant relationship between cash conversion cycle and liquidity (Ebben & Johnson, 2011; Canina & Carvell, 2008).

Last but not least, the result indicated a relationship between firm size natural logarithm of total assets and liquidity. The result showed that there was a negative and significant relationship between the smaller firms and liquidity where the p-value was 0.0327. The smaller firms have the tendency to grow more as compared to larger firms since they are more able to adapt to the ever-changing business environment (Afrika & Padachi, 2016). Besides that, smaller firms have bigger opportunities to outperform larger firms especially when they are at growing stage based on product life cycle theory.

4. Conclusion

Cash conversion cycle is a crucial part in firm financial decision as it is one of the elements in working capital management. Generally, firm managers, investors and future investors will use the firms' working capital ratio as their guide to evaluate the performance of a particular firm before they decide on the next improvement to be taken and the decision of whether to invest in that particular firm or not.

This study examines the relationship between cash conversion cycle and liquidity in consumer products firms in Malaysia for a period of 10 years from 2007 to 2016. The findings indicate that cash conversion cycle is strongly positive and significantly related to liquidity. This shows that the longer the cash conversion cycle, the higher the liquidity position. Higher liquidity will give a major impact on the firms' efficiency, leverage, growth, market share price as well as profitability. By having higher liquidity, firms can increase their efficiency level in terms of account receivables collection, maintain inventory rotation and account payable. This is because when firms are maintained at an adequate level, it is easier to conduct daily routine.

The conclusion of this study relates to previous research of Garanina and Petrova (2015), Canina and Carvell (2008), Al-Shubiri and Mohammad Aburumman (2013) and Lyroudi and Lazaridis (2000); the higher the CCC, the higher the liquidity. Besides that, it is also found that liquidity is negatively and significantly related to the size of firm. This means the smaller the firm size, the higher the liquidity position. As such, all hypotheses are accepted except for there is no significant relationship between days of sales outstanding and liquidity and there is no significant influence days of sales outstanding towards liquidity which are consistent with the research done by Al-Shubiri and Mohammad Aburumman (2013).

More efforts are needed with regard to cash conversion cycle and liquidity in Malaysia firms. In conjunction with the conclusion above, future researchers are encouraged to use a dynamic measure of liquidity rather than traditional measure of liquidity that is current ratio or quick ratio as well as acid test ratio as the dependent variable. Dynamic measure of liquidity will have the advantage of information obtained from cash flow. One should remember that information obtained from cash flow will provide a wider and wiser interpretation concerning current situation of a firm. Therefore, it is way more practical and detailed than the data included in the balance sheet, especially in terms of the structure of financing and financial liquidity (Stefa, 2011). In addition, future research should be conducted on the same topic but with different parts of country in Southeast Asia such as Singapore, Thailand and Indonesia. This is because those countries are the closest comparison to our pattern of economy. Along with that, the scope of further research may be extended to make a comparison between the effect of cash conversion cycle with other financial performance; for example, profitability, the age of firm and growth of firm.

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