

WORKING CAPITAL MANAGEMENT AND PROFITABILITY OF MANUFACTURING COMPANY IN INDONESIA

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Abstract: *Manufacturing companies in Indonesia are increasing in number in recent years. Large growth should be balanced with good working capital management due to the manufacturing company is carrying out buying of raw material activity, afterward convert them into semi-finished goods and finished goods. Cycles from purchasing goods, inventory management, debt repayment, product sales, cash received will have effect on profitability.*

Purpose of this study to determine whether working capital management affect profitability of manufacturing companies publicly listed on Indonesian Stock Exchange from 2010-2015. This study uses quantitative method by using linear regression analysis tool on panel data.

Results of this study found that the component of working capital proved to affect profitability of manufacturing companies Listed in Indonesian Stock Exchange. Therefore the companies should be able to manage properly their working capital. Manufacturing companies should improve their management pattern applied to their current assets and current liabilities. Working capital management should be performed by shortening cash conversion cycle, debt withholding, and by increasing current assets value due to it proves to be able to improve profitability of the company.

Keywords: *Manufacturing Company; Profitability; ROA; Working Capital Management*

INTRODUCTION

In Indonesia, manufacturing sector is one of important sector and significantly contributes to national economic development. Manufacturing industry sector is constituting a fairly stable sector and became one of the country's economic support amid the uncertainty of world economy with a positive growth rate. (Darmawan 2016)

Manufacturing industry in Indonesia has experienced periods of economic crisis and economic stable growth. It is important for any company to increase liquidity and cash flow especially during slowing economic growth, cash has become very expensive resources to borrow. Therefore, companies should not forget the fact that most of cash is constituting part of working capital component. Therefore it is important to bring new strategies in managing cash flow effectively without affecting the relationship with major suppliers. Therefore, working capital management should acquire higher priority by managers. (Thuvarakan 2013).

In the manufacturing industry, any company purchases raw materials by credit will create trade payables, further the raw materials are transformed into semi-finished goods and finished goods. It is then recorded in inventory for the goods. After finished goods, the sale is done, in case it is done by giving credit will create accounts receivable. After the receivables paid by the consumer, the company will get the cash. This cycle is called working capital management. At least there are few things to address i.e. cash, receivables, inventories in the form of raw materials, semi-finished goods, finished goods, accounts payable. All of those are current assets and current liabilities.

Working capital has an important role in measuring company performance.

Working capital can to detect the level of liquidity and profitability. The same with cash flow management, the information contained in working capital can be used to predict the conversion of cash flow.

Management of company, besides of important operational activities should address its financial performance as well. In order to increase profits, increase its investment, sometimes if it is not managed properly, it may even ignore the aspect of liquidity and even increase debt level to any level that is not effective. In case not carefully managed this can result in liquidity problem, huge debt, default payment and moreover lead to bankruptcy.

Profitability is a measure of company's worth and it is important in order to achieve the company's goal of maximizing prosperity for shareholders. However performance has broad definition in nature and not limited to finance only however also how the company's efforts to combine operations, strategies, financial data in order to achieve its expected goal.

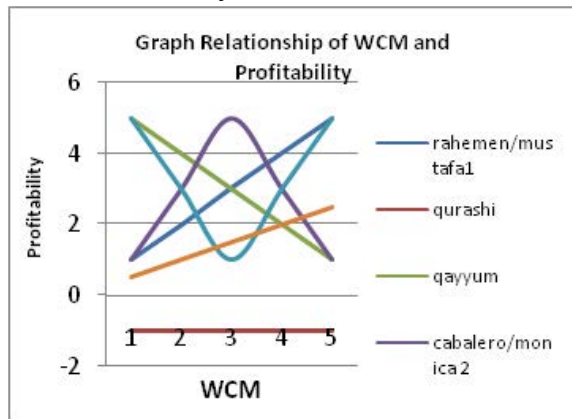
That is one reason why working capital is a useful summary measure of assets and current liabilities. The advantage of measuring working capital that it is not subject to season or temporary movement among different current assets or liabilities. However this advantage is also become weakness, due to working capital hides a lot of interesting information such as cash converted into inventory, then become receivables, and become cash again. However these assets have different levels of risk and liquidity. Companies cannot pay bills with inventory or with receivables, it has to pay by cash. (Brealey, Myers & Allen, 2011)

Working capital management is the management between current assets and current liabilities and constituting an important area for the company and all financial managers usually make

different decisions in order to get good results.

Several previous studies have shown different results. This can be shown with the following graph:

Figure 1 Graph Relationship of WCM and Profitability



From the graph described above, the author sees that the relationship between working capital management to profitability shows different results. The studies were conducted by taking samples from several industries in different countries.

The Author believes that for Indonesia especially in the manufacturing industry is still an open space for study. Indonesia is a developing country, the result can be different from previous study that investigates in another countries. The manufacturing industry in Indonesia is also characterized by working capital management between small companies and large companies may vary and the impact on profitability also varies when compared with other industries both in Indonesia itself and industry in other countries. There could be a company considered small in other countries however in Indonesia with the same type is considered as big company.

Work capital management is an integration between inventory management, accounts payable and accounts receivable. (Temtime, 2015).

Inventory increase due to the company purchases goods to be produced again to become semi-finished goods or finished goods. Purchases made on credit will create debt until the payment settlement is done. Usually there is a time lag between items received up to payment. Some suppliers may give a discount if the payment is made in cash and before the due date and others may not do it. There are also suppliers who set certain minimum quotas to buy goods from them. From the policies taken by management to inventory management and debt management there is cost to be borne and considered when determining the most optimum strategy for the company.

If the company sets a low-level inventory there are several things that can happen. Companies buy in small amounts consequently the price offered by the supplier becomes more expensive than buying in large quantities. The company also needs to consider the opportunity that may be lost if the stock is small when the demand in the market is big, how big the impact of loss of sales and profit opportunities due to production that cannot be done due to out of stock.

If the company sets a high-level inventory, risks that may need to be considered among other things are cost of storage, defected goods, insurance, and other related costs.

In case of debt management, if the company does not make payments with debt the company needs to consider payments in other ways. Timely payments may leave the company overwhelmed if the repayment period is faster than the money receiving period from sale of goods. However, there is another aspect that companies need to consider as some suppliers may discount when company paying earlier and also the company reputation needs to be considered if the

company delays payments too long.

After the goods are purchased, the company processed the goods and give added value to consumers. To perform a production process, the company requires not only material, but also labor and other costs associated with the production process.

After finished goods are produced then sold to consumers. Companies need to consider some aspects such as providing discounts to loyal customers, sales schemes can be cash or receivables with a certain period. Companies need to be cautious too, especially if the consumer is often late to pay or the distributor just does not distribute the product well. It will cause problems in the company's cash receiving as well as profitability.

Therefore, the author is interested to study working capital management and its relationship to profitability of manufacturing industry in Indonesia. Data is selected from companies publicly listed in Indonesian stock exchange due to the data is easily acquired from existing media such as Indonesian Capital Market Directory, Internet, journals, and relevant books.

Research questions are

1. Does the ratio of total current assets to total assets have a positive effect on company profitability (ROA)?
2. Whether the ratio of total current liabilities to total assets affects negatively on company profitability (ROA)?
3. Whether current ratio affects negatively on company profitability (ROA)?
4. Does cash ratio have a positive effect on company profitability (ROA)?
5. Whether cash conversion cycle affect negatively on company profitability (ROA)?

This study aims to determine whether working capital management affect on profitability of manufacturing companies

publicly listed on Indonesian Stock Exchange. It can be described as follows:

1. To recognize that ratio of total current assets to total assets have positive effect on company profitability (ROA).
2. To identify ratio of total current liabilities to total assets have negative effect on company profitability (ROA),
3. To identify that current ratio affect negatively on profitability of the company (ROA).
4. To determine the cash ratio has a positive effect on corporate profitability (ROA).
5. To identify that cash conversion cycle affect negatively on profitability of the company (ROA).
6. Does Working Capital jointly affect on profitability.

The research purpose is to contribute positively to management about working capital management and impact to company profitability

2. Literature Review

2.1 Working Capital Management

2.1.1 The meaning of Working Capital Management

According to Monica (2017), Working capital is a measure of operating liquidity and defines short-term conditions of the company and inefficient management of working capital may worsen the company strength.

According to Dalayeen (2017), Working capital measures the company's ability to sustain its activities without threatening liquidity. Working capital management is often considered as a tool to sustain business competence in carrying out its operational activities.

Working capital according to J. Fred Weston and Thomas E. Copeland is the difference between current assets and current liabilities. Therefore working capital is an investment in cash,

securities, receivables and inventories deducted by current liabilities used to protect current assets.

2.1.2 Purpose of Working Capital

The purpose of working capital management is to balance between liquidity and profitability of any company's operational activities. Liquidity is a preliminary condition to convince that a company can meet its short-term liabilities and continue its activities for corporate profit. Working capital Management ensures that the company has sufficient cash to pay short-term debt and corporate operational activities.

2.1.3 The Importance of Working Capital

Zariyawati said that working capital is an important issue in corporate financial decisions. Management of working capital is the company's effort to maintain the company's liquidity in order to the company's daily operations may run well, meanwhile on the other hand the company can still fulfill its short-term obligations. Company managers who can not manage their working capital well have an impact on the company's growth and profitability that will ultimately lead the company to financial distress and bankruptcy.

Singh & Pandey (2008) stated that working capital plays an important role in the company's funding decisions especially related to the company's liquidity aspects. Wijaya & Murwani (2010) stated that the main goal of the company is to increase the value of the company. Companies should always try to make the right financial decisions with the aim of increasing profits and optimizing the value of the company.

Dong & Su (2010) explains that one of the important financial decisions for a company is working capital management. The main objective of working capital management is to provide adequate

support to the company business operation.

Raheman et al. (2010) states that the efficiency of managing working capital is very important for manufacturing companies. Management of working capital directly affects the company's liquidity and profitability.

2.1.4 Calculation of Working Capital

According to Richard & Laughlin in Temtime (2015), the CCC (Cash Conversion Cycle) is method of measuring working capital by calculating the time to convert the money spent to become earned money.

Cash Conversion Cycle (CCC) = Inventory Period (INP) + Account Receivable Period (ARP) - Account Payable Period (APP)

$$\text{Cash Conversion Cycle (CCC)} = \text{Inventory Period (INP)} + \text{Account Receivable Period (ARP)} - \text{Account Payable Period (APP)}$$

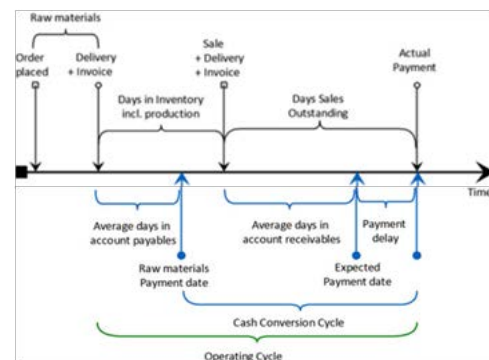


Figure 2 Operation Cycle of Manufacturing Company

Number of days in inventory: The average number of days that a company holds inventory of good before sales or production (Kroes & Manikas, 2014). Inventory days are $[\text{inventories} * 365] / \text{cost of sales}$.

Number of days in receivables: The average number of days that a company takes to collect revenue from outstanding

sales (Kroes & Manikas, 2014). Trade receivable days can be calculated as $[\text{accounts receivable} \times 365] / \text{sales}$.

Number of days in payables: The average number of days a company takes to pay creditors (Kroes & Manikas, 2014). Trade payable days are $[\text{accounts payable} \times 365] / \text{purchases}$.

Debt approach. There are two ways to measure leverage being used in the literature regarding the relationship between profitability and WCM. First, by dividing the total debt / total assets. This method is used by Raheman and Nasr (2007), Shin and Soenen (1998). Second, another method, accounts payable is issued and calculated by dividing the short-term bank loans added by long-term bank loans and divided by total assets. Deloof (2003).

Current ratio method, measured by dividing between current assets with current liabilities. Shin and Soenen (1998).

In addition, fixed financial asset can be used by dividing fixed financial assets with total assets. This variable is used by Deloof (2003), Raheman and Nasr (2007).

According to Deloof (2003), fixed financial assets are shares in other companies that are intended to contribute to the activities of the companies operating them so as to build lasting relationships and loans (debt) are secured with the same purpose.

Measuring working capital can be done by using the following variables:

Table 1 Study Variabel in Working Capital and Name of Authors Whose Using It

According to Deloof (2003) majority

NO	VARIABEL WORKING CAPITAL	NAME OF AUTHOR
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1	Accounts Receivable Period (ARP)	Temtime (2015), Chuan-Guo Li, et.al.(2014), Raheman, et.al. (2010)
2	Inventory Period (INP)	Temtime (2015), Chuan-Guo Li, et.al. (2014), Raheman, et.al. (2010)
3	Accounts Payable Period (APP)	Temtime (2015),Raheman, et.al (2010)
4	Cash Conversion Cycle (CCC)	Temtime (2015), Raheman, et.al (2010)
5	Current Asset/ Total Asset	Wijaya, Anggita (2012), Rahemen, et.al (2010)
6	Current Liabilities/ Total Asset	Wijaya, Anggita (2012), Rahemen, et.al (2010), Shin & Shoenen (1998)
7	Total Current Asset/Total Current Liability	Wijaya, Anggita (2012), Rahemen, et.al (2010)
8	Total Liabilities/ Total Asset	Wijaya, Anggita (2012), Rahemen, et.al (2010) Shin & Shoenen (1998)
9	Total Cash/ Total asset	Wijaya, Anggita (2012), Banos-Caballero (2013)
10	(Current Asset - Current Liabilities)/ Current Asset	Chuan-Guo Li, et.al (2014)

company invest significant cash to working capital and use debts as source of fund important to manage company profit

Raheman and Nasr (2007) suggest manager to increase shareholder value by reducing minimum level receivable days and inventories days.

Variables used are Current Asset to Total Asset, Current Liabilities to

Total Asset, Current asset to Current Liabilities, Total Cash to Total Asset, and Cash Conversion Cycle.

Variable Accounts Receivable Period (ARP) Inventory Period (INP), Accounts Payable Period (APP) are not studied separately but include on Cash Conversion Cycle is $ARP + INP - APP$. Total liabilities/Total Asset is not used too due to the reseachfouce on current liabilities, so longterm liabilities not examined. Study Chan Guo li (current asset - current liabilities)/current asset is not used due to this reseach is not examined company strategy on different level of working capital.

2.2 Profitability

2.2.1 The meaning of Profitability

Profitability is a measure of a company's wealth. This is important in order to achieve the company's goal of maximizing wealth for shareholders.

2.2.2 Calculation of Profitability

Temtime (2015) states however to measure profitability can be done by using several methods, i.e. accounting ratio, by measuring market valuation, or by measuring perception of a subject (non-financial subject). Accounting ratio being used such as return on asset, return on investment, return on equity, gross operating profit, and earnings per share. Measurement of market valuation such as market value added and Tobin'sq.

Measuring non-financial subjective such as measuring customer satisfaction, employee morale, product quality and other nonfinancial performance measurements. Return on asset(ROA), gross operating profit to total asset (GOPTA), and Tobin'sq (TBQ) measure profitability from a different perspective.

Profitability can be measured using the following variables:

Table 2.2 Study Variable on Profitability and Author Name Whose Using It.

ROA is a well-known traditional

NO	PROFITABILITY VARIABEL	AUTHOR
1	Profitability Return on Asset (ROA)	Temtime (2015), Chan Guo etc (2014)
2	Gross Operating Profit to Total Asset (GOPTA)	Temtime (2015), Deloof (2003)
3	Tobin's q (TBQ)	Temtime (2015)
4	Return on Invested Capital (ROIC)	Wijaya, Anggita (2012)
5	Return on Capital Employed (ROCE)	Dalayeen (2017)

accountability measure of profitability (Katchova & Enlow, 2013). ROA includes measuring profitability from total investment of the firm.

Gross operating profit (GOPTA) is another proxy for profitability. Abuzayed (2012) investigate the impact of WCM on profitability through GOPTA. Banos-Caballero et al. (2013) also use GOPTA as a proxy measure of profitability. GOPTA also connects the company's operations with CCC and its components (Banos-Caballero et al., 2013). Deloof (2003), Profitability is measured by Gross Operating Income, i.e. $Sales - COGS / (Total Asset - Financial Asset)$. Financial Assets are shares in other companies, which are constituting a significant part of total assets.

Tobin's q (TBQ) is a market assessment that measures that companies and potential investors are often used to evaluate the value of a company's market replacement. Tobin's q represents Value added by management above the the companyassetvalue, (Abuzayed, 2012)

ROIC is measured by referring to Mohammed & Saad study (2010) that is by dividing net profit to total debt added

by total equity.

The variable used in this study is Gross Operating Profit or sometimes called Gross Operating Income due to it emphasizes on company activity at operating level and company activity as a whole is assessed by ROA (Return on Asset) method due to ROA is a measure that is often used in many study and the data is easily acquired from Indonesian Stock Exchange.

Besides, ROIC refers to study of Wijaya, Anggita (2012), its formula net profit divided by total debt added by equity and the result will be equal to ROA. $\text{ROIC} = \frac{\text{Net Profit}}{\text{Total Debt} + \text{Total Equity}}$. $\text{ROCE} = \frac{\text{Earnings Before Interest and Tax (EBIT)}}{\text{Capital Employed}}$ is also not being used due to the author wants to examine the company value by its operation and entirely.

2.3 Impact of Working Capital on Company Profitability

This study aims to examine the effect of working capital components on the profitability of companies publicly listed in Jakarta Stock Exchange. Manufacturing companies convert raw materials into finished goods and sell it. This business process requires a relatively long cash conversion period so it is necessary to manage the working capital properly. The problem in this study is the existence of two different views that explaining relationship between working capital and corporate profitability from those of previous study.

According to Qayyum et al. (2010), the company can have low working capital for the purpose of increasing profit means there is a negative relationship between working capital and corporate profitability.

Meanwhile, according to Raheman et al. (2010), considered that a large working capital would have a positive impact on corporate earnings.

Qurashi&Zahoor (2017) study conducted on pharmaceutical companies in England using financial data 2009-2014 which measure impact between working capital with the firm size, profitability, leverage, operating cycle, growth, and economic scale indicated that working capital have negative effect to company size, and positively effect on growth and economic scale. While the operating cycle, profitability, and leverage showed less significant results on working capital.

Monica (2017) in her study tried to investigate functional relationship between working capital investment and profitability of business entities. The sample consists of companies registered in developing countries in Asia. Countries selected in this demography are India, Pakistan, Myanmar, Sri Lanka, Bangladesh, Singapore, Thailand, Malaysia, Indonesia, Vietnam Hong Kong, Japan, China, S. Korea and Taiwan. These countries provide an overview of market dynamics in developing countries in Asia and the results can be interpreted to provide results in general for the impact of WCM on profitability. This study shows that profitability and WCM are related in a nonlinear way. The study shows that there is a relationship between working capital and profitability that resembles 'U' and 'U upside down' for companies from different countries being examined. For companies from Sri Lanka, India, Indonesia, Malaysia and Singapore, lower rates of working capital are positively related to profitability whereas for firms from China, Pakistan, Bangladesh, Hong Kong and South Korea, higher levels of working capital are positively related to profitability. While in the remaining companies in Thailand, Taiwan and Vietnam are not in the form of U or U upside down. Research on the relationship between working capital and profitability in non-financial companies

in these countries shows that positive profitability is related to working capital for Taiwan and Vietnam and negative for Thailand.

Dalayeen Study (2017) conducting on real estate industry in Jordan shows that there is a significant impact between working capital management and profitability.

Mustafa et al (2015) examines the efficient management of working capital and its impact on the profitability of small firms and large firms, the result is that when comparing small firms and large firms, it turns out that its working capital management has an impact on profitability but their sensitivity is different, and more impact on profitability for large companies. Therefore advisable for managers of large corporations to double their efforts on effective working capital management in order to encourage profitability.

Study on working capital and its impact on company performance, among others, by Yogendrarajah (2014) investigating the impact of working capital management and financial performance of trading companies concluded that working capital management has a strong impact on financial performance.

Chuan-guo Li et al (2014) studied Working Capital Management, Corporate Performance, and Strategic Options on the wholesale and retail industry in China concluded that the strategic choice in the management of working capital affects on performance. According to Kim et al., 1998, the decision of working capital affects the company's performance significantly and found that firms with greater value require investments in working capital than smaller firms. Shin et al (1998) argues that firms with larger profits are not motivated to manage working capital. So there is negative relationship between working capital and company performance.

Banos-Caballero (2013), the relationship between working capital and U-shaped performance, meaning that there is an optimal level of investment in working capital to balance the costs and benefits in the effort to maximize company performance.

Based on the above background description, the author would like to study the impact of working capital components on the profitability of the company.

2.4 Hypothesis

3. Research Methods

- H1 CATAR (Ratio total current asset to total asset) affect positively on company profitability (ROA)
- H2 CLTAR (The ratio of total current liabilities to total assets) negatively affects company profitability (ROA).
- H3 Current ratio affects negatively on company profitability (ROA)
- H4 Cash Ratio has a positive effect on company profitability (ROA)
- H5 CCC (Cash conversion cycle) has a negative effect on company profitability (ROA)
Working Capital jointly affects profitability

This research uses quantitative method using linear regression analysis tool of panel data. Panel data regression is a regression analysis using panel data that is a combination of cross section data and time series data and is used to provide an overview of the relationship between the dependent variable and the independent variable. Panel data regression is more efficient and provides more information than multiple linear regression methods. As for the object of research is a manufacturing company listed on the Jakarta Stock Exchange from 2010 to 2015. This study uses

purposive sampling method

Before the regression test, the data will be tested classical assumption, including normality test, multicollinearity test, autocorrelation test and heterokedastisitas test. Steps for the research is first, define object of study to variable x and y. Second, estimate the panel data regression model : Common Effect Model, Fixed Effect Model, Random

Effect Model. Third, Classical assumption test such as normality, multicollinearity, heteroscedascity, and autocorrelation. Fourth, Define Statistical Research Hypothesis. Fifth, Statistical test such as F-test, T-test, Coefficient of determination (R²), and Pearson Correllation test

4. Findings

Table 3.1 Table of Regression Result, T Test and Conclusion

NO	Variable X	Coefficient of Regression	Hypothesis	Sig.t X	Result	Correlation	Conclusion
1	CATAR	0.2408	CATAR positively affect on profitability (ROA)	-	Ho Reject	0.241**	Positive effect, significant, weak correlation
2	CATAR	- 0.2339	CLTAR negatively affect on profitability (ROA)	-	Ho Reject	-0.360**	Negative effect, significant, moderate correlation
3	Current Ratio	- 0.0033	current ratio negatively affect on profitability (ROA)	0.085	Ho Reject	0.317**	Negative effect, significant, moderate correlation
4	Cash Ratio	0.1009	Cash rasio positively affect on profitability (ROA)	0.044	Ho Reject	0.566**	Positive effect, significant, strong correlation
5	CCC	- 0.0002	Cash conversion cycle negatively affect on profitability (ROA)	0.001	Ho Reject	-0.310**	Negative effect, significant, moderate correlation

Test result partially found that CATAR positively affect the profitability of companies (ROA). The results of this study support research conducted by Raheman et.al (2010) who found that CATAR has a positive and significant impact on corporate profitability. This indicates that the composition of current assets is greater then it will increase profitability of the company. This is due to any aggressive company that has increase in current assets means that the company has large cash, therefore the working capital of the company will be greater and this will be able to increase the company's sales so directly and proportional to the increase profitability

of the company. The relationship CATAR and profitability (ROA) is positive and weak means only 24.1% CATAR affect on profitability (ROA).

Partial test results found that CLTAR had a significant negative effect on company profitability as measured by ROA. This result is in accordance with the research hypothesis which states that there is a negative and significant influence between Current Liabilities to Total Assets Ratio against Profitability. Current liabilities to total assets ratio are used to view working capital funding. The greater the use of large debt will cause the capital structure to become larger and stronger, therefore increasing

the CLTAR ratio and will enable companies to expand and increase the company's sales, therefore profitability of the company will indirectly increase. The results of this study support the research conducted by Raheman et.al (2010) that the current liabilities to total assets (CLTAR) negatively affect the profitability of the company's operations. The relationship CLTAR and profitability (ROA) is negative and moderate meaning only equal to 36.0% CLTAR effect on profitability (ROA) and the rest influenced by other factors.

Test result partially found that the current ratio affected significantly negative on company profitability as measured by ROA. This result is in accordance with the research hypothesis which states that there is negative and significant effect of Current Ratio to Profitability. This indicates that a large current ratio will decrease company profitability due to greater current assets that are able to cover current liabilities that are soon due, then the company experienced many assets unemployed and not being used to increase sales. The results of this study are in line with the theory that profitability is inversely proportional to liquidity (Horne and Wachowicz, 2012). The higher the current ratio of a company means less risk of failure of the company in fulfilling its short-term obligations, which will certainly reduce profitability. The results of this study are in accordance with some previous studies (Azam. and. Haider. 2011). In this study the relationship between the current ratio on ROA shows negative relationship. Some studies show different results. Research (Rahemen. 2010), (Shoenen Shin.1998), (Dalayeen, 2017) shows that current ratio has a positive effect on profitability. Muhammad and Saad (2010) study shows that current ratio negatively affects profitability. The relationship

of CR (Current Ratio) and profitability (ROA) is positive and moderate meaning only 31.7% CR affect the profitability (ROA) and the rest is influenced by other factors.

The test results partially found that Cash Ratio has a significant positive effect on corporate profitability as measured by ROA. Cash ratio is one of liquidity ratio, which aims to measure a company's ability to meet its short-term obligations. Several previous studies stated that Cash ratio has a positive and significant effect on company profitability such as research (Wijaya, Anggita, 2012). The relationship CsR (Cash Ratio) and profitability (ROA) is positive and strong mean only equal to 56.6% CsR effect on profitability (ROA) and the rest influenced by other factors.

The partial test result found that the cash conversion cycle (CCC) has affected negatively and significant on profitability (ROA). The results are in accordance with Raheman et.al (2010); Deloof (2003) and the Lazaridis and Tryfonidis (2006) study that consistently found relationship between CCC and profitability. Companies with shorter CCC terms are likely to reap bigger profits when compared to companies with longer CCC periods. This phenomenon can be explained as follows: companies that have short CCC time are able to collect the cash needed for the company's day-to-day operations, therefore no need to use external sources of funding which means there is no cost to borrow funds, then company profit will increase. The relationship of CCC and profitability (ROA) is negative and medium meaning only 31.0% CCC effect on profitability (ROA).

While the ROA indicates that there is significant and simultaneous influence between working capital consisting of CATAR (ratio of total current assets to total assets), CLTAR (The ratio of total current liabilities to total assets),

Current ratio, Cash Ratio and CCC (Cash conversion cycle) on ROA's profitability.

In general, the company's working capital strategy is divided into 3 i.e. aggressive, moderate, and conservative. Managers who implement aggressive strategies, implement the lowest current asset strategy and bravely implementing the strategy by trying to take maximum advantage of current debt. That's how managers aggressively manage the company. In implementing this strategy, liquidity risks will increase and companies that run this strategy often face situations such as not being able to repay maturing debts. On the other hand, due to number of current assets at the lowest level, the rate of return on investment will increase (if the company does not go bankrupt). Companies that use risk strategies are high risk and their refund rate is very high. (Amiri, Esmaeil 2014)

Conservative manager will apply a different strategy than an aggressive manager. Conservative managers will reduce their short-term debt rates and prefer to use long-term debt in managing their current assets. Meanwhile some would prefer to use other sources of funds such as shareholder capital rather than borrow.

While moderate managers will implement a strategy that is a combination of aggressive strategy and conservative strategy. CATAR (Current Asset to Total Asset Ratio). Focus on the management of current assets to total assets. Manager will consider the optimal management of their current assets in accordance with the strategy applied to the company. For an aggressive manager, current assets such as cash, securities and inventory will be set as small as possible. As a result of small assets that are very liquid like cash and securities, companies will have difficulty paying debts due. The regulated inventory policy is small, also

resulted in the company not being able to meet sales to consumers and eventually the company became loss. A losing company must cover fixed costs and if a fixed asset purchase is made, and it will be financed with funding sources such as debt which is certainly have interest charge. Conservative manager, on the contrary will set up high current assets compared to total assets and moderate manager will be in between.

Therefore the higher CATAR means the manager is implementing a conventional strategy. And the lower CATAR means the manager is applying an aggressive strategy, the following is the result of manufacturing industry in Indonesia.

CLTAR (Current Liabilities to Total Asset Ratio). An aggressive manager will apply a strategy to maximize short-term debt and use it to finance the company's current assets however this does not mean not to use long-term debt at all due to fixed assets can be acquired by long-term debt. (Jhankhany and Parsaeian. (2001) Raymond P (1986)). While conventional manager actually does not like to use short-term debt and prefer long-term debt and if the manager is very conventional, the manager will prefer to use other sources of fund besides debt.

The higher the CLTAR means the manager is applying an aggressive strategy. And the lower CATAR means the manager is implementing a conventional strategy.

CR (Current Ratio means Current Asset to Current Liabilities). This ratio is related to the level of corporate liquidity and describes the ability of the company to pay its short-term debt at maturity. The greater the current ratio, means the company is getting more liquid and means the company's ability to pay its short-term debt better.

Therefore the higher the CR means the manager is implementing a conventional strategy. And the lower CR means the

manager is applying an aggressive strategy.

CsR (Cash ratio = total cash to total assets). Managers will manage cash optimally, however an aggressive cash management style will tend to reduce cash to total assets. While conventional managers will save in the form of greater cash to maintain the level of liquidity. Coudrec (2005) company holds large amounts of cash in order to maintain the company's liquidity level and avoid financial distress. If external funding is difficult and expensive then the company will use internal funding sources in the form of cash to finance investment in fixed assets and other current assets of the company so as to increase the profitability of the company. However, the policy have their pros and cons, by maintaining large cash then the risk of the company will be small, so the rate of return is also small. (Chan.Guo 2014) states that the relationship between cash flow to total assets and working capital is negative in the market terminal strategy. When the company's operating cash increases due to business activity, the company has a good working capital capability so that the company keep its working capital small. Therefore the relationship between cash to total assets (CR) to working capital is not significant.

Therefore the higher the CsR means the manager is implementing a conventional strategy. And the lower the CsR means the manager is applying an aggressive strategy.

CCC (Cash Conversion Cycle) is the time company takes to spend money to produce goods until the time the company earns money from sales. (Temtime, 2015). An aggressive manager

will apply a high CCC. While conventional manager will apply low CCC.

The following is the result of descriptive analysis of each variable in manufacturing industry in Indonesia. Maximum and minimum values show the result of each variable when compared in the manufacturing industry in Indonesia whether the trend is aggressive or conventional. While Mean (average) is the average behavior of working capital

Table 4.1 Statistical Descriptive Result of Study Variables (Working Capital)

	CATAR	CLTAR	CR	CSR	CCC
Mean	0.54	0.34	2.15	0.09	138.29
Median	0.55	0.31	1.52	0.05	97.50
Maximum	0.95	0.85	13.08	0.49	652.32
Minimum	0.12	0.03	0.40	0.00057	42.48
Std. Dev	0.18	0.17	1.76	0.10	108.53

management with tolerance of less or more as standard deviation. Therefore we will be able to infer from the data and categorize the strategy whether the company is conventional, moderate or aggressive.

After identified the result of descriptive analysis of manufacturing industry in Indonesia, we will be able to

Table 4.2 Strategy of Working Capital Management

	CATAR		CLTAR		CR		CSR		CCC	
	From	To	From	To	From	To	From	To	From	To
aggressive	0.12	0.37	0.51	0.85	0.40	0.39	0.00	0.09	246.82	652.32
Moderate	0.37	0.72	0.17	0.51	0.39	0.39	0.09	0.19	29.77	246.82
conservative	0.72	0.95	0.03	0.17	3.92	13.08	0.19	0.49	-	42.48 29.77

categorize into conservative, moderate or aggressive strategy.

Descriptive analysis of the data will be

Table 4.3 Table of Regression Result and Working Capital Strategy

	ROA	Strategy
CATAR CLTAR	0.54	0.34
Current Ratio	0.55	0.31
Cash Ratio	0.95	0.85
CCC	0.12	0.03

Absolute value from regression

processed further to categorize strategy for each variable. Result shows as follow:

CATAR on ROA 0.2408 will be optimal if managed aggressively. This means that the ratio between current assets to total assets of 0.12 up to 0.37 or 12% - 37% of current assets to total assets of the company and aggressive strategies category will have a positive effect on profitability (ROA).

CLTAR on ROA 0.2339 will be optimal if moderately managed. This means that the ratio of current liabilities to total company assets of 0.17 to 0.51 or 17% - 51% of current liabilities to total assets of the company and moderate strategy category will affect negatively on profitability GOPTA.

CR (Current Ratio) on ROA shows the value of 0.0033. This means that the company is managed with aggressive CR methods.

CsR (Cash Ratio) in ROA regression shows the value of 0.1009. This means that the company manages Cash Ratio moderately.

CCC (Cash Conversion Cycle) on ROA regression shows the value of 0.0002 means the company manages cash ratio conventionally.

5. Conclusion and Suggestion

5.1 Conclusion

This study was conducted on manufacturing industry group with sample of 59 companies. The results show that:

1. CATAR (Ratio of total current assets to total assets) has a positive effect on corporate profitability (ROA). This means the greater the ratio of the company's current assets the greater the company profitability.
2. CLTAR (The ratio of total current liabilities to total assets) negatively affects the company's

profitability (ROA). This means that the greater the current liabilities of the company and the company will have a large current debt burden and this will reduce the profitability.

3. Current ratio negatively affects corporate profitability (ROA). This means the greater ratio current assets to the company's current debt will increase the profitability (ROA).
4. Cash Ratio positively affect profitability of the company (ROA) means the greater the company's cash ratio to its current debt will increase the profitability (ROA).
5. CCC (Cash conversion cycle) has a negative and significant impact on company profitability (ROA) means that the greater the value of CCC ratio will be lower the profitability of the company and the lower the cash conversion cycle, the higher the profitability.
6. Significant and simultaneous influence of working capital consisting of CATAR (Current assets total ratio to total assets), CLTAR (The ratio of total current liabilities to total assets), Current ratio, Cash Ratio and CCC (Cash conversion cycle) on profitability ROA of the company.
7. Optimum working capital management will vary its strategy for each variable. CATAR is managed aggressively, CLTAR is managed conservatively or moderately, Current Ratio is managed aggressively, Cash ratio is managed moderately, and CCC is managed conservatively in order to achieve profitability.

5.2 Implication of the Study

Result of this study found that the working capital component proved to

affect profitability of manufacturing companies in BEI (Indonesian Stock Exchange). Therefore those companies should be able to manage their working capital. Companies within the manufacturing industry group should improve the management pattern applied to their current assets and current liabilities. Working capital management should be done comprehensive and integral among those financial components. The right combination needs to be done by shortening the cash conversion cycle and withholding debt as it proves to increase the profitability of the company. In addition, working capital management should be done by increasing the value of current assets and withholding debt as it proved enable to increase profitability. Management combines strategies i.e. CATAR is managed aggressively, CLTAR is managed conservatively or moderately, Current Ratio is managed aggressively, Cash ratio managed moderately, and CCC is managed conservatively in order to achieve optimal profitability.

5.3. Limitations of Research

Results of this study is still far from perfection, due to there are limitations such as:

1. Number of samples of this study is limited to 59 manufacturing firms that are still small number compared to entire manufacturing companies, therefore it cannot be inferred from existing 150 manufacturing companies.
2. This study was conducted by only using financial report data to analyze working capital, strategy and profitability of the company. The author does not conduct other research methods such as interview, survey or distributing questionnaire to the management of the companies in order to know more about working capital management in

the companies under this study.

5.4. Suggestion

Further study should be more research and development due to there are still lack of research in Indonesia related to efficiency of working capital in relation to profitability of the company. Further study should be done by adding more research samples, adding more variables such as ratio of receivables and inventories. Further study should be done by taking into account the strategies for every company at the level of its aggressive, moderate, conventional or combination of financial and nonfinancial strategies in each company as well as in different industries.

Further study should not only using financial report data to analyze working capital, strategy and profitability of the companies however performing other research methods such as interviews, survey or distributing questionnaires to the management of the company in order to know more about working capital management in all those companies being studied. All companies should be analyzed one by one and find solutions related to effective working capital management and the most appropriate strategy for each company in order to achieve optimal profitability

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