

# The determinants of working capital management in Indonesia and the Philippines

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## Abstract

**Purpose:** This study aims to analyze and identify determinants of working capital of manufacturing firms listed on Indonesia and the Philippines Stock Exchanges. This study focuses on working capital because firms with inadequate working capital may experience operational difficulties and lead to financial distress. Thereby, firms must have adequate working capital.

**Design/Methodology/Approach:** The study employed panel data, with the final sample for Indonesia was 630 years of observation, while for the Philippines, the sample used was 210 years of observation. The sample of the study was manufacturing firms listed on Indonesia and the Philippines Stock Exchanges.

**Findings:** The study results in the Indonesian sample show that profitability and growth opportunities have a significant positive effect on working capital. Asset tangibility, firm age, and leverage have a significant negative effect on working capital. While operating cash flow and firm size have no effect on working capital. In comparison, the results in the Philippines sample show that profitability has a significant positive effect on working capital. Asset tangibility and leverage have a significant negative effect on working capital. While operating cash flow, growth opportunities, age, and firm size have no effect on working capital.

**Research Limitations:** This study has limitations, namely observations done only on manufacturing firms listed on Indonesia and the Philippines Stock Exchanges. Further research can use a sample with broader coverage in the service sector and expand variables that might affect working capital requirements, especially in the Covid-19 pandemic.

**Practical Implications:** For a firm's decision-makers, this present study can be used as a reference in making decisions related to working capital management. Bad decision-making in determining the amount of working capital may lead to high capital costs and financial distress.

**Originality/Value:** What factors affect the amount of working capital is an attractive topic for many researchers today. Poor working capital management will result in a firm not being able to meet its maturing obligations and may lead to financial distress. The use of samples in developing countries, namely Indonesia and the Philippines, that is relatively similar, making this present study unique. By using samples in developing countries, this study can investigate differences in results between developing countries.

**Keywords:** working capital, operating cash flow, profitability, growth opportunities, asset tangibility, debt

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## Introduction

Every firm needs working capital to run its business activities. If firms have inadequate working capital, the firms may experience liquidity problems and lead to financial distress. Nonetheless, excess working capital can also harm firms, especially if the working capital comes from loans because the firms have to bear a higher interest rate. Thus, good working capital management is essential for firms so that their working capital can be used optimally. Working capital management is one of the central issues in the business process and is closely related to funding decisions that have an impact on firm performance; thus, research on working capital is essential for business people (Lyngstadaas & Berg, 2016; Soukhakian & Khodakarami, 2019). Many studies on working capital have been carried out, but what factors affecting working capital appear to be relatively neglected (Pratap Singh & Kumar, 2014). Several studies show that determinants of working capital are operating cash flow, profitability, growth opportunities, asset tangibility, firm age, firm size, and leverage (Cuong & Nhung, 2017; Moussa, 2019; Singh & Kumar, 2017).

The size of working capital is influenced by the operating cash flow available in the firms. Firms that are able to generate operating cash flow tend to have higher cash and working capital. However, some studies advocate that operating cash flow has a significant negative effect on working capital requirement. This is due to a higher cash flow indicates efficient working capital management resulting in a lower working capital requirement (Adiyanto, Murhadi, & Wijaya, 2020; Moussa, 2019; Singh & Kumar, 2017). Meanwhile, highly profitable firms are able to provide more credit facilities to customers; thereby, expected to have a greater working capital investment (Moussa, 2019; Cuong et al., 2017; Singh et al., 2017). However, some findings state a negative relationship between profitability and working capital. Companies with high profits will hold relatively low working capital. This argument is because the ability to generate profits in one period can meet the company's working capital needs (Archavli, Siriopoulos, & Arvanitis, 2012; Atseye, Ugwu, & Takon, 2015).

Business growth opportunities will also affect the working capital that firms must prepare. Firms with large growth opportunities are required to provide large working capital in order to take advantage of these business opportunities (Sing et al., 2017). However, some studies have contrary opinions where high growth opportunities are resulted from effective working capital management, so firms with high growth opportunities have lower working capital requirement (Moussa, 2019; Cuong et al., 2017).

High asset tangibility indicates a large amount of fixed assets. The existence of these large amounts of fixed assets also requires high working capital. Yet, some findings show the opposite results, where asset tangibility has a negative effect on working capital requirements (Cuong et al., 2017; Singh et al., 2017). The negative effect of asset tangibility on working capital is based on the argument that the greater the funds invested in fixed assets, the smaller the funds used for working capital. Another variable that affects working capital is firm age. Old firms usually imply that the firms have been known for a long time by other businesspeople so that it is easier to obtain working capital from banks or other suppliers (Moussa, 2019). However, some findings show contrary results, where young firms need more working capital to support their business development (Singh et al., 2017).

Another variable identified as having an effect on working capital is firm size. Large firms also require large working capital. However, several studies reveal different results where large firms have a negative effect on working capital (Adiyanto et al., 2020; Cuong & Nhung, 2017; Moussa, 2019). The argument built by those who advocate negative is that large firms have higher bargaining power with suppliers and customers so that the costs incurred for working capital are lower (Haron & Nomran, 2016). While Singh et al. (2017) reveal that firm size has an insignificant negative effect, this may be due to SMEs used as Singh et al.'s research objects do not differ much in terms of size. The next variable identified as having an effect on working capital is debt. Firms with high debt will have a negative effect on working capital. Firms with high debt indicate that firms have inadequate internal funds to finance their operating activities. Firms with high debt need to pay a higher interest cost so that the cash available in working capital becomes limited (Adiyanto et al., 2020; Moussa, 2019; Singh & Kumar, 2017).

This study fills a gap that is still not conclusive regarding the factors that influence the determination of the number of working capital requirements. The need for significant working capital, on the one hand, will be able to make the company meet the obligations that are currently due, but too sizeable working capital will have a negative impact by decreasing the company's profitability. Companies that invest too much in working capital will provide lower profitability than companies that invest heavily in fixed assets. This study seeks to fill the gap regarding the factors that determine the amount of working capital in the company.

Based on the explanation above, this study will examine the effect of operating cash flow, profitability, growth opportunities, asset tangibility, firm age, firm size, and leverage on working capital requirements. This study will examine the working capital of manufacturing firms listed on Indonesia and the Philippines stock exchanges. These two countries were selected based on the calculation of the stock price index return of five developing countries in ASEAN, where Indonesia and the Philippines have the closest correlation.

## Literature Review and Hypothesis Development

### Working Capital

Working capital refers to a firm's current assets used to support daily business activities and finance short-term operational needs (Kasmir, 2017). Working capital management oversees current assets and current liabilities to ensure current assets are always greater than current liabilities (Murhadi, 2013). Current assets include cash, receivables, inventories, and short-term securities. While short-term liabilities include short-term loans from banks, trade payables, tax payables, and a portion of long-term debt (Melyana, Murhadi, & Ernawati, 2019; Putri, Murhadi, & Utami, 2019). Poor working capital management will result in a firm not being able to meet its maturing obligations and may lead to financial distress. Working capital management can be measured through the Working Capital Requirement (WCR).

WCR can be defined as a firm's strategy to meet its working capital turnover. WCR begins when cash is invested in working capital elements until it generates cash return in a short-term or less than one year period. WCR is critical as by knowing the WCR, a firm can determine how much funds should be invested in current assets. Lack of working capital will hamper a firm's operating activities (Baños-Caballero, García-Teruel, & Martínez-Solano, 2014; Takon & Atseye, 2015); on the contrary, excess working capital will reduce the profitability and liquidity of the firm because the working capital is not used optimally (Melyana et al., 2019; Putri et al., 2019).

### Operating Cash Flow

Operating cash flow signifies the difference between cash in and out of a firm's operating activities; thereby, it is considered the most important part of the cash flow statement (Moussa, 2019). The amount of cash flow originating from operating activities helps a firm evaluate whether the firm generates sufficient cash flow to repay loans, maintain organizational operating capability, pay dividends, and make new investments without relying on external funding sources. If a firm has a limited amount of cash, it will have difficulty paying its operational obligations. Therefore, in general, investors are very concerned about the cash flow conditions that will be invested. Several studies have shown that operating cash flow has a significant negative effect on working capital (Ahmad & Zain, 2017; Moussa, 2019; Rehman et al., 2017; Singh & Kumar, 2017). This is due to a higher cash flow indicates efficient working capital management, which subsequently results in a lower WCR.

H1. Operating cash flow has a negative effect on working capital.

### Profitability

Profitability ratio is used to assess a firm's ability to generate profits, the level of effectiveness and efficiency of the firm's management (Melyana et al., 2019). The ratio reflects a firm's ability to earn profits through cash, capital, sales, number of employees, total capital, and others. In maximizing profit, a firm should also pay attention to the level of liquidity to ensure its performance and sustainability. From this explanation, it can be concluded that high profitability has an effect on

sufficient working capital internally, so profitability has a significant positive effect on WCR (Cuong & Nhung, 2017; Melyana et al., 2019; Moussa, 2019; Rehman, Wang, & Kabiraj, 2017; Singh & Kumar, 2017). This is because firms with high profitability can provide more cash facilities and receivables to customers; thereby, expected to have greater working capital investment.

H2. Profitability has a positive effect on working capital.

### **Growth Opportunities**

Growth opportunity is a firm's future opportunities that can be measured through sales growth. It can influence investors' decisions to invest because high firm growth implies the achievement of shareholder prosperity. High growth rate firms have the opportunity to expand (Uremadu, Egbide, & Enyi, 2012). In contrast, low growth rate firms tend to use long-term debt. Several studies advocate a positive relationship between sales growth and working capital requirements (Rehman et al., 2017; Singh & Kumar, 2017; Zariyawati, Anuar, & Pui-San, 2016). To accelerate sales growth, firms need to provide more credit to customers to increase WCR. Firms with high sales growth need to increase inventory to anticipate future sales.

H3. Growth opportunities have a positive effect on working capital.

### **Asset Tangibility**

Asset tangibility is one of the variables that can affect the capital structure. Asset tangibility is used as collateral for investors who invest in a firm. Generally, firms with collateral will find it easier to obtain external funding sources than firms without collateral (Kurniasari, Murhadi, & Utami, 2016). Asset tangibility refers to fixed assets, where if a firm's fixed assets are relatively high, the current assets will be lower in percentage. Several studies reveal a negative relationship between fixed assets and working capital where firms tend to manage working capital efficiently when investing in fixed assets (Cuong & Nhung, 2017; Kurniasari et al., 2016; Rehman et al., 2017; Singh & Kumar, 2017). Firms with more tangible assets can raise external funds quickly and at a lower cost because these tangible assets serve as collateral for loans.

H4. Asset tangibility has a negative effect on working capital.

### **Firm Age**

Firm age determines firm size. Firm age signifies how strong a firm is able to compete and survive from its competitors. The older the firm, the greater the investor confidence in the firm. Older firms have relatively more experience and business partners, making it easier to gain access to working capital. The older the firm age, the more information the public gets regarding the firm; thereby, increasing customer confidence in the firm's products (Nyeadi, Sare, & Aawaar, 2018; Afrifa & Padachi, 2016). Moussa (2019) advocates a positive relationship between firm age and working capital. Older firms can get easier access to external capital and secure larger trade credit at a lower cost.

H5. Firm age has a positive effect on working capital.

### **Firm Size**

Firm size is the size of a firm that can be determined through the total assets owned by the firm. A large firm size will enjoy the benefits of achieving economies of scale in the firm's operations, easier access to funding, and bargaining power with both suppliers and customers. Large firms tend to have wider access to external funding sources, both long-term and short-term, at a lower cost. Based on this, firm size has a positive effect on working capital requirements because large firms have higher bargaining power with suppliers and customers so that the costs incurred for working capital are lower. This is supported by Chauhan & Banerjee (2018), Gaur & Kesavan (2015) and (Aktas, Croci, & Petmezas, 2015), which state that large firms have higher bargaining power with suppliers and customers.

H6. Firm size has a positive effect on working capital.

## Leverage

Leverage exhibits the extent to which a firm can fulfill all its obligations if the firm is liquidated. Leverage has several important roles for a firm, including (1) if a firm's shareholder financing is low, the firm can continue to operate using debt; (2) the smaller the total financing provided by the shareholders, the riskier the creditors will be; and (3) the greater the return earned from investments financed by debt than the interest expense that must be paid, the greater the return on owner's capital will be. Several studies stipulate that debt has a negative effect on working capital along with high interest and installment expenses (Mathuva, 2010; Moussa, 2019; Murhadi, 2013; Rehman et al., 2017; Singh & Kumar, 2017). A firm with high debt needs to pay higher interest and installment expenses, making its cash for working capital decreases. A firm with a debt-heavy capital structure might suffer from a shortage of the funds needed for daily operations, and it forces the firm to seek external capital to meet its internal needs.

H7. Leverage has a negative effect on working capital.

## Research Methods

This study employed panel data on manufacturing firms listed on Indonesia and the Philippine Stock Exchanges. Manufacturing firms meeting the following criteria were selected as the sample: (1) The firm must be listed on Indonesia and the Philippines Stock Exchanges during 2014 to 2018, (2) The firm must issue audited financial statements and ending December 31, and (3) The firm must have available data about all variables under study during the 2014-2018 period. This study employed panel data model with the dependent variable is working capital requirements (WCR), and the independent variables are operating cash flow, profitability, growth opportunities, asset tangibility, firm age, firm size, and leverage. WCR is an evaluation of a firm's working capital management, which is calculated by subtracting current liabilities from current assets and then divided by total assets. Operating Cash Flow (OCF) is a firm's cash flow related to operating activities. OCF is calculated by dividing operating cash flow by total assets. In this study, Return On Assets (ROA) obtained from net income divided by total assets is used as a proxy measure for profitability. Growth opportunities are a firm's future growth opportunities. Growth opportunities are calculated by subtracting the previous year's sales from the present year's sales and then divided by the previous year's sales. Asset tangibility such as property, plant, and equipment is one of the factors that can affect the capital structure. Asset tangibility acts as a guarantee for investors who invest in a firm and is calculated by dividing net fixed assets by total assets. Firm age is a firm's age since the firm was founded until the present. Firm age is calculated by subtracting the year of a firm's establishment from the current year. Firm size is the size of a firm that can be determined through the total assets owned by the firm. (Moussa, 2019). Firm size is calculated by the natural logarithm of a firm's total assets. Leverage in this study is calculated using the debt ratio. The equation model of this study is as follows:

$$WCR = \alpha + \beta_1 OCF_{1it} + \beta_2 PROF_{2it} + \beta_3 GROWTH_{3it} + \beta_4 TANG_{4it} + \beta_5 AGE_{5it} + \beta_6 SIZE_{6it} + \beta_7 LEV_{7it} + e$$

where

$OCF_{it}$  : firm's percentage of operating cash flow at period t

$PROF_{it}$  : firm's percentage of firm's profitability at period t

$GROWTH_{it}$  : firm's percentage of growth opportunity at period t

$TANG_{it}$  : firm's percentage of total fixed assets at period t

$AGE_{it}$  : firm's age at period t

$SIZE_{it}$  : firm's size at period t

$LEV_{it}$  : firm's percentage of debt at period t

$\alpha$  : constant coefficient

$\beta$  : regression coefficient

$e$  : error

This study used the ordinary least square model by testing the classical assumptions, the Chow and the Hausmann tests to determine whether the best model is the common effect model, fixed effect, or random effect. The Chow test is used to determine whether the common model is better than the fixed model. If the Chow test shows that the fixed effect is better than the common model, further testing is carried out using the Hausman test. Hausman test determines whether the fixed or random model is better used for data analysis.

### Results and Discussion

The objects used in this study were manufacturing firms consisting of the basic and chemical industry sectors, the various industrial sectors, and the consumer goods sector listed on Indonesia and the Philippine stock exchanges from 2014 to 2018. The final samples that met the criteria were 126 firms in Indonesia and 42 firms in the Philippines. The study employed panel data with the final sample for Indonesia was 630 years of observation, while for the Philippines was 210 years of observation.

Descriptive statistics describe the characteristics of each study sample that represents the population. The data in Table 1 shows no difference between the average descriptive data in Indonesia and the Philippines, except for the growth and age of the company. Table 1 show that companies in the Philippines have an average age older than companies in Indonesia. This condition is possible because there are not many old companies in Indonesia but do not go public to the Indonesian stock exchange. In terms of growth, it can be seen that Philippine companies in recent years have indeed faced relatively high growth compared to other Southeast Asian countries.

**Table 1.** Descriptive Statistics for Samples in Indonesia and The Philippines

Variables	Indonesia			The Philippines		
	Mean	Min	Max	Mean	Min	Max
Working Capital	0.14	-4.28	0.79	0.11	-0.96	0.58
Operating Cash Flow	0.06	-0.29	0.91	0.08	-0.14	0.43
Profit	0.04	-0.39	0.92	0.05	-0.30	0.25
Growth	0.07	-0.98	5.94	0.12	-0.70	2.67
Tangibility	0.40	0.01	0.96	0.31	0.01	0.77
Age	39.36	5	101	42.78	4	99
Size	28.51	25.21	33.47	29.32	25.15	32.31
Leverage	0.53	0.06	5.07	0.50	0.03	1.19

Furthermore, the correlation coefficient between two variables is presented, where if the correlation between the independent variables is high, then a multicollinearity problem occurs (Gujarati, 1995). Based on Tables 2 and 3, it is known that there is no high correlation value (i.e., a value greater than 0.8 or less than -0.8) between the independent variables used. Thus, the test results in this study are free from multicollinearity.

**Table 2.** Correlation Coefficient between Two Variables for samples in Indonesia

	Ops.CF	Prof.	Growth	Tang	Age	Size	Lev
Ops.CF	1						
Prof.	0.491	1					
Growth	-0.080	0.036	1				
Tang	0.004	-0.227	0.033	1			
Age	0.220	0.322	0.017	-0.047	1		
Size	0.126	0.124	0.030	0.187	0.148	1	
Lev	-0.078	-0.248	-0.004	-0.010	-0.099	-0.013	1

Source: EViews, processed data.

**Table 3.** Correlation Coefficient between Two Variables for samples in The Philippines

	Ops.CF	Prof.	Growth	Tang	Age	Size	Lev
Ops.CF	1						
Prof.	0.437	1					
Growth	0.038	0.120	1				
Tang	0.113	-0.219	0.008	1			
Age	0.109	0.110	-0.021	0.006	1		
Size	0.155	0.130	-0.044	0.184	0.048	1	
Lev	-0.177	-0.539	0.071	0.361	-0.085	0.432	1

Source: EViews, processed data.

After conducting the Chow and Hausman tests, it is known that the best model for the sample of Indonesian firms is the fixed effect model, while for the sample of The Philippines firms is the random effect model. The following table compares the results of the regression test on samples in Indonesia and the Philippines:

**Table 4.** Results of Regression test on samples in Indonesia and the Philippines

Variables	Indonesia		The Philippines	
	Coeff.	t-stat	Coeff.	t-stat
C	0.747	8.189***	0.352	1.478
Ops. CF	-0.007	-0.548	0.084	0.763
Profit	0.150	7.977***	0.283	1.803*
Growth	0.009	2.066***	-0.002	-0.155
Tangibility	-0.495	-25.473***	-0.238	-3.382***
Age	-0.007	-12.051***	0.000	0.548
Size	0.006	1.367	0.003	0.574
Leverage	-0.541	-25.651***	-0.649	-13.443***
R. Squared	0.987		0.351	
Adj. R Squared	0.983		0.329	
F Statistics	287.485***		15.647***	

Note:

\* : Significant at 10%

\*\* : Significant at 5%

\*\*\* : Significant at 1%

Table 4 exhibits that operating cash flow has no effect on working capital in both Indonesian and the Philippines samples. This signifies that operating cash flow has no effect on working capital because the cash held by the firm can be allocated for other activities so that it is not totally used for working capital. From descriptive statistics, it can be seen that corporate debt in Indonesia and the Philippines reaches a proportion above 50%, so it is expected that the available cash flow is primarily used to meet debt obligations and not used for working capital. This study indicates that operating cash flow in both Indonesia and the Philippines does not affect the working capital requirements of manufacturing companies in both countries.

Table 4 exhibits that profitability has a significant positive effect on working capital in both Indonesian and the Philippines samples. This signifies that Hypothesis 2 of this study is accepted. This is supported by Akgün & Memiş Karataş, 2021; Cuong & Nhung, 2017; Singh & Kumar, 2017), which advocate that profitability has a significant positive effect on working capital. This is due to firms with high profitability are able to provide more cash facilities to customers; thereby, expected to have greater working capital investment (Nyeadi et al., 2018). The results of this study indicate support for the second hypothesis, where high profitability will impact high working capital requirements in manufacturing companies in both Indonesia and the Philippines.

Table 4 exhibits that growth opportunities have a significant positive effect on working capital in Indonesia samples. This is supported by Singh et al. (2017) which advocate that firms

with high sales growth rates need to increase inventory to anticipate future sales. Then to accelerate sales growth, firms need to provide more credit to customers so that they can increase WCR. Meanwhile, in the Philippines sample, it is known that growth opportunities have a significant negative effect on working capital. This is supported by Cuong et al. (2017) and Nyeadi et al. (2018), which reveal that growth opportunities cannot be used as a determinant of working capital because, in general, firms use long-term debt to finance future growth opportunities. According to Nyeadi et al. (2018), firms with high growth opportunities encourage firms to invest more in long-term investments. When the economic conditions in a country are growing rapidly, firms will get a lot of opportunities and confidence to invest their assets in long-term prospects instead of holding assets in short-term investments. Long-term debt is more beneficial than short-term debt, where long-term debt allows firms to hedge the cost of debt within a certain period to avoid the risk of rising interest rates (Gitman, Juchau, & Flanagan, 2015). From the explanation above, it can be concluded that growth opportunities have no effect on working capital because working capital is measured through short-term assets and debt.

Table 4 exhibits that asset tangibility has a significant negative effect on working capital in Indonesian and the Philippines samples so that Hypothesis 4 is accepted. This is supported by Cuong et al. (2017) and Singh et al. (2017), which reveal that asset tangibility has a significant negative effect on WCR because the greater the funds invested in fixed assets, the smaller the funds used for working capital. The results of this study support the fourth hypothesis, where companies with high tangible assets will reduce the need for working capital in both the case of manufacturing companies in Indonesia and the Philippines. A significant investment in tangible assets will have an impact on reducing funds for working capital needs.

Table 4 exhibits that firm age has a significant negative effect on working capital in Indonesian sample. However, the hypothesis in this study states a positive relationship between firm age and working capital. Therefore, a type 1 error occurred in the results of this study, where the results of the study show that  $H_0$  was rejected even though  $H_0$  was actually true. This is supported by Goel & Sharma (2015), which state that younger firms have faster growth than older firms which have more stable growth, so that firm age will have a negative relationship on working capital investment. Younger firms will invest more in working capital to maintain their sales growth. Meanwhile, in the Philippines sample, it is known that firm age has a significant positive effect on working capital. Firm age does not determine the size of the working capital requirement (Singh & Kumar, 2017). Lowly profitable firms, such as small firms, young firms, poor performance firms, and so on, still have the opportunity to carry out efficient working capital management. Age does not determine whether the firm is able to manage working capital better or vice versa (Fiador, 2016). Thus, it can be concluded that age does not affect the amount of working capital. Firm age cannot be used as a benchmark in assessing firms' quality. The age does not always guarantee that the firms have a healthy financial condition. Firms of any age can experience unhealthy financial conditions or even bankruptcy. Therefore, firm age cannot be used as a determining factor for working capital requirements.

Table 4 exhibits that firm size has an insignificant positive effect on working capital in both Indonesian and the Philippines samples. In Table 4, manufacturing firms in Indonesia and the Philippines used as research objects have relatively small size intervals. Therefore, firm size has no significant effect on working capital. The characteristics of Indonesian firms are usually joined in one holding company (owned by an ultimate owner who usually makes strategic decisions for one holding company, not for one firm specifically); thereby, firms' working capital policy is not influenced by firm size. The same thing was also found in the Philippines firms.

Table 4 exhibits that leverage has a significant negative effect on working capital in both Indonesian and the Philippines samples. This is supported by Moussa (2019); Murhadi (2013) & Singh & Kumar (2017), which stipulate that leverage has a significant negative effect on WCR. Firms with high debt indicate that they have inadequate internal funds to finance their operating activities; the higher the debt, the higher the interest costs paid because it is considered riskier, so firms will reduce their working capital. The results of this study indicate support for the seventh hypothesis, where companies with high debt will impact reducing working capital (Jakpar et al.,



2017). This result is consistent in the case of manufacturing companies in Indonesia and the Philippines.

The  $R^2$  value in Indonesian sample is 0.987072 and the adjusted- $R^2$  value is 0.983639. Thus, it can be concluded that on the results of the regression test in Indonesian sample, the dependent variable (WCR) can be explained well by the independent variables (operating cash flow, profitability, growth opportunities, asset tangibility, firm age, firm size, and leverage) of 98%. While the  $R^2$  value in the Philippines sample is 0.351587 and the adjusted- $R^2$  value is 0.329117. Thus, it can be concluded that on the results of the regression test in the Philippines, the dependent variable (WCR) can be explained well by the independent variables (operating cash flow, profitability, growth opportunities, asset tangibility, firm age, firm size, and leverage) of 33%.

## Conclusion and Future Direction

Based on the F-test, the calculation results show that the F-statistic probability value on the regression test results in Indonesian and the Philippines samples is 0.000000, which is less than 5%. This implies that operating cash flow, profitability, growth opportunities, asset tangibility, firm age, firm size, and leverage have a significant effect on working capital at the 5% level. Based on the t-test results, it is known that profitability and growth opportunities have a significant positive effect on working capital in the Indonesian sample. Asset tangibility, firm age, and leverage have a significant negative effect on working capital. While operating cash flow and firm size have no effect on working capital. In the Philippines sample, it is known that profitability has a significant positive effect on working capital. Asset tangibility and leverage have a significant negative effect on working capital. While operating cash flow, growth opportunities, age, and firm size have no effect on working capital. For investors, this present study can be used as a reference to examine the effect of operating cash flow, profitability, growth opportunities, asset tangibility, firm age, firm size, and leverage on working capital in manufacturing firms listed on Indonesia and the Philippines Stock Exchanges for the period 2014-2014. For firms, this present study can be used as a reference in making decisions related to working capital management. For further researchers, this present study can be used as a reference to examine what factors affect working capital in further research. This study has limitations, namely observations done only on manufacturing firms listed on Indonesia and the Philippines Stock Exchanges over the 2014-2018 period. Future research can use a sample with a broader scope and the latest period to obtain more accurate results.

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