

SUSTAINABLE GROWTH THROUGH WORKING CAPITAL MANAGEMENT

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Abstract

Recently, the business environment has become increasingly dynamic and fully uncertain. In such situation, it is important for companies to have sustainable growth. This article aims to discuss short-term cash flow management through working capital to support sustainable growth. The research was conducted using financial report data from non-financial companies listed in the LQ45 index on the Indonesian capital market in 2023. Samples were taken using historical data for 2019-2022. As we know that those years taken as of considering the uncertain conditions of the Covid-19 pandemic. The analysis used panel data regression analysis because it joined times series and cross-section data. The research results found the influence of aggressive working capital management for investment on sustainable growth. However, aggressive/conservative working capital for financing has no effect on sustainable growth. The company's strategic environment influences aggressive/conservative working capital management. In conditions of growth opportunities, companies tend to use aggressive working capital management for investment. Financial distress also has a positive effect on aggressive working capital policies for financing through the use of short-term debt. The results of this study provide implications for working capital management as a mediator of growth opportunities and financial distress for sustainable growth.

Keywords: Sustainable Growth, Working Capital Management, Aggressive-Conservative, Growth Opportunities, Financial Distress.

INTRODUCTION

Organizations, both profit and non-profit oriented, and their environment are like living organisms undergoing stages of development. Organizations and their environments experience development in balanced cycles of growth and decline. Organizations in the midst of environmental dynamics need to be adaptive, proactive and innovative in creating and capturing opportunities for change. On the other hand, organizations also need to have the capacity to survive when the organization's internal and external environment is under financial pressure (Bancel & Mittoo, 2011).

Recently, the organizational environment has become increasingly dynamic. In a dynamic environment, it is important for companies to have financial flexibility and dynamic capabilities to support sustainable growth. Financial flexibility and dynamic capabilities are needed to survive difficult economic times and be able to take advantage of unexpected investment opportunities (Bancel & Mittoo, 2011). Dynamic capabilities and financial flexibility are achieved through funding management and asset management (current and non-current).

When a company is in a condition of growth opportunities, investment in the form of research and development, equipment, factory expansion becomes an option to capture growth opportunities. This causes the proportion of non-current assets to be greater than current assets or what is known as policy *Aggressive investment decisions*(AID)(Meah et al., 2021; Pestonji & Wichitsathian, 2019). On the other hand, in conditions of financial stress, the proportion of investment activity in non-current assets decreases or known as a conservative policy in investment. Higgins (2012, pg. 221) explains that in conditions of growth, there are attractive investment opportunities that the company is positioned to undertake in the coming years. On the other hand, physical assets are needed when a company is in financial difficulty. Companies with growth options are not recommended to use even though it saves tax. Aggressive debt financing or known as *Aggressive Financing Decisions*(AFD)(Meah et al., 2021; Pestonji & Wichitsathian, 2019).

Empirical studies of the influence of aggressive-conservative working capital management on profitability and risk have been explained by many previous studies (Altaf & Ahmad, 2019; Morshed, 2020; Pestonji & Wichitsathian, 2019). However, limited empirical literature explains sustainable growth performance, especially in conditions of environmental uncertainty such as the Global Pandemic. The term sustainable growth emerged in the 1970s in the business field(Babcock, 1970). Sustainable growth is aimed more at the concept of sustainable growth(Raby et al., 2022). Growth in a business organization is like growth in a living organism, namely birth, growth, development and then experiencing a decline in both the product and organizational life cycles. To grow sustainably, companies need to have the ability to maintain, survive (in Latin *sustinere*. "To sustain". Sustainability is the durability of a system and process.

Based on the description of the background of the problem and research gaps above, the objectives of this research are to:

- (1) Analyze the influence of working capital management policies (conservative-aggressive) on sustainable growth performance,
- (2) Analyze the influence of environmental dynamics as measured by proxies for growth opportunities and *financial distress* towards the company's working capital management policy (conservative-aggressive).

LITERATURE REVIEW

1. Sustainable Growth

Growth in old English is known as *growan*, "to grow or flourish [to grow or develop]" to become bigger. Growth means increasing size, structure and ability (Utami et al., 2018). Many literatures develop growth taxonomies for various interests in different time frames, such as short-term and long-term growth (Mamilla, 2019), actual growth, slow and fast growth, internal growth and external growth (Bei & Wijewardana, 2012), or sustainable or unsustainable growth (Raby et al., 2022).

A company's sustainable growth cannot be measured only by sales or revenue growth, but requires a set of capabilities to survive and take advantage of opportunities. Sales growth and capital growth alone are not enough indicators of sustainability. Higgins (2012) stated that a company's ability to grow sustainably can be seen from the elements: strong profit margins, asset turnover, a combination of financial elements (retention level and capital structure) and efficient and effective use of debt (leverage). (R. Higgins, 1977, 2012). The concept of sustainable growth was put forward by Higgins (R. Higgins, 1977) as optimal growth from a financial perspective, where company's sales can continue to increase without running out of financial resources and without depending on the use of external finance (R. Higgins, 1977, 2012). Higgins (1977) introduced the term 'sustainable growth rate' as the consistency between a company's growth targets and financial policies. The concept of sustainable growth in this case is achieved by the company by prioritizing internal resources for maximum growth levels before using external resources (R. Higgins, 2012).

2. Working Capital Management (WCM)

Working capital is the management of short-term assets (current assets and current liabilities) which are used for the company's operational activities (Kayani et al., 2019). Working capital components include current assets and current liabilities. Current assets include: cash, receivables, inventories, and short-term securities (Baños-Caballero et al., 2016; Tjandra, 2022). Current liabilities include: short-term loans from banks, trade payables, tax payables, and a portion of long-term debt (Baños-Caballero et al., 2016; Tjandra, 2022). WCM can also be measured as the difference between current assets after deducting current liabilities divided by total assets (Kurt et al., 2020; Nyeadi et al., 2018; Rehman et al., 2017; Tjandra, 2022).

Appropriate working capital management and policies will support efforts to take advantage of opportunities while maintaining the company's financial health. Working capital management needs to be effective to maximize income and be cost efficient. Aggressive working capital management for investment on the one hand provides the company's ability to create and capture environmental opportunities, on the other hand it has the potential to cause financial liquidity problems and potential bankruptcy. (Kayani et al., 2019). Companies use different strategies in managing working capital. The company implements a conservative working capital policy with the aim of reducing liquidity risk by holding more current assets than current liabilities. In contrast, companies use aggressive working capital policies with fewer current assets to finance investments in fixed assets. The company uses an aggressive working capital policy to finance investment in fixed assets and permanent current assets using a larger proportion of short-term funding sources. (Yeboah & Agyei, 2012).

3. Effect of Growth Opportunities and Financial Distress on Working Capital Management

Higgins (2012) explains that company value consists of two types, namely physical assets and growth options. Growth options are attractive investment opportunities that the company is positioned to pursue in the coming years. On the other hand, physical assets are needed when a company is in financial difficulty. In conditions of growth opportunities, companies invest in

research and development activities, as well as investments in physical assets. On policy *Aggressive investment decisions* (AID) (Meah et al., 2021; Pestonji & Wichitsathian, 2019), the proportion of non-current assets will be greater than current assets. The AID policy often has an impact profitability, but hand in hand risk because the results are uncertain and often disrupt the company's liquidity (Altaf & Ahmad, 2019; Morshed, 2020; Pestonji & Wichitsathian, 2019). Although, several other studies found a low and insignificant effect (Kayani et al., 2019). This can cause the higher the growth opportunities, the more aggressive the company uses working capital for investment or the growth opportunities have a negative effect on AID. On the funding side, debt will indeed save taxes, but in conditions of growth, funding sources from capital are a more efficient source of funds than debt (Higgins, 2012, pg. 221). This can cause growth opportunities to negatively influence working capital for financing (AFD) policies. This means that the company will prioritize its own capital, external capital, long-term debt rather than short-term debt for funding.

Pecking Order Theory suggests that companies with future growth opportunities will tend to increase internally generated funds to meet future capital demands. In this case, the company will avoid using short-term debt. Companies with future growth opportunities will prioritize cheap own capital and external capital (Uremadu et al., 2012). When internal capital is insufficient, companies use debt-based external funding sources. In contrast, companies with low growth rates tend to use long-term debt and short-term debt as the last priority. Companies that have growth opportunities are seen as companies that have the right investment opportunities and will therefore provide working capital to take advantage of these opportunities. Growth opportunities may affect WCM due to its impact on trade credit and investment in inventories. Some research (Kurt et al., 2020; MA Zariyawati et al., 2016; Rehman et al., 2017; Tjandra, 2022) found a positive influence between growth opportunities on working capital policy. Although several other studies (Haron & Nomran, 2016; Nyeadi et al., 2018) found a positive influence between growth opportunities on working capital policy.

The next hypothesis can be formulated as follows:

H_{1a}. Growth opportunities have a positive effect on aggressive working capital policy for investment.

H_{1b}. Growth opportunities have a negative effect on aggressive working capital policy for financing.

On the other hand, in conditions of financial stress, companies do conservative policy in investment with the proportion of investment activity in non-current assets. Physical assets are needed when a company is in financial difficulty. Based on the Pecking Order Theory proposed by Myers and Majluf (Nyeadi et al., 2018), companies experiencing financial difficulties with low growth rates tend to use long-term debt and short-term debt because they save taxes (Higgins, 2012). Although debt incurs transaction costs, it offers tax advantages (tax shield). Capital as a last resort due to the risk of information asymmetry. This can cause the higher the financial pressure, the more conservative the company is in using working capital for investment or growth opportunities, which has a positive effect on AID. Conversely, the

higher the financial pressure, the more aggressive the company is in financing or financial pressure has a positive effect on AFD. Empirically, most studies suggest a positive influence between the level of leverage on the use of working capital (Haron & Nomran, 2016; Kurt et al., 2020; MA Zariyawati et al., 2016; Moussa, 2019; Nyeadi et al., 2018; Rehman et al., 2017; Tjandra, 2022).

The next hypothesis can be formulated as follows:

H_{2a}. Financial Distress has a negative effect on aggressive working capital policy for investment

H_{2b}. Financial Distress has a positive effect on aggressive working capital policy for financing

4. Working Capital Management for Sustainable Growth

Companies that are aggressive in working capital policies for investment (low AID ratio), provide an indication of the company's growth opportunities (Kurt et al., 2020; MA Zariyawati et al., 2016; Rehman et al., 2017; Tjandra, 2022). An aggressive working capital policy for investment will be accompanied by potential profitability (ROA and ROE) in the short term (Altaf & Ahmad, 2019; Morshed, 2020; Pestonji & Wichitsathian, 2019). Potential profitability increasing internally generated funds to meet future capital demands. Based on Pecking Order Theory (Higgins, 2012), companies will finance their long-term investment projects first through internally generated funds to avoid expensive external financing and lack of shareholder monitoring. Companies experiencing financial difficulties with high debt loads will experience a lack of funds needed for daily operations.

The next hypothesis can be formulated as follows:

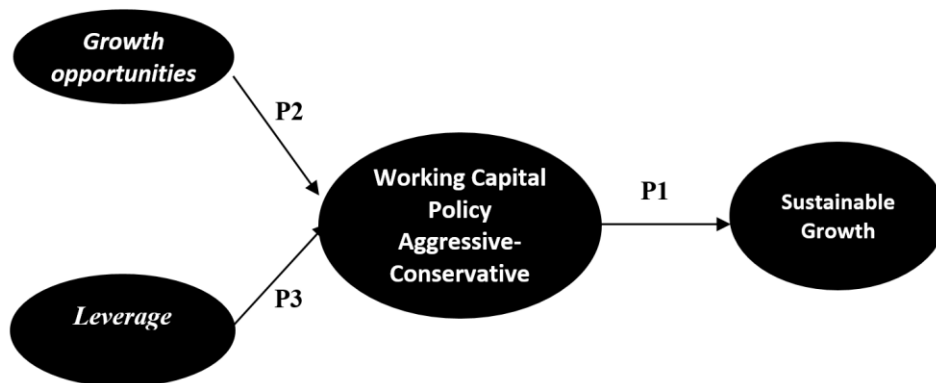
H_{3a}. Aggressive working capital policies for investment have a positive effect on the Sustainable Growth Rate (SGR)

Companies that are aggressive in working capital policies for financing (high AFD ratios) give an indication that the company is under financial pressure (Haron & Nomran, 2016; Kurt et al., 2020; MA Zariyawati et al., 2016; Moussa, 2019; Nyeadi et al., 2018; Rehman et al., 2017; Tjandra, 2022). Several studies state that debt has a negative effect on working capital due to high interest and installment expenses. Companies with high debt need to pay higher interest and installments, reducing their cash for working capital. A company with a debt-heavy capital structure could potentially lack the funds needed for day-to-day operations.

The next hypothesis can be formulated as follows:

H_{3b}. Aggressive Working Capital Policy for financing has a positive effect on the Sustainable Growth Rate (SGR)

The research conceptual model can be described as follows.



RESEARCH METHODS

The research was conducted using financial report data from non-financial companies listed in the LQ45 index on the Indonesian capital market in 2023. Samples were taken using historical data for 2019-2022. Reasons for the sample year by considering the uncertain conditions of the Covid-19 pandemic. Based on these criteria, the sample size was 37 non-financial companies from 45 companies listed in the LQ45 index. A total of 2 companies (GOTO and BUKALAPAK) only went public during the research period of 4 years, so that in total complete data was obtained for 143 company-observation samples.

Table 1: Research and Measurement Variables

Variable	Measurement	Reference
Dependent: WCM Impact		
ROA	<i>Return on Assets</i>	(Akbar et al., 2021; Altaf, 2020; Meah et al., 2021; Nwude et al., 2021; Rey-Ares et al., 2021)
ROE	<i>Return on Equity</i>	(Akbar et al., 2021; Coleman & Wu, 2020; Nwude et al., 2021; Rey-Ares et al., 2021)
SGR (Sustainable Growth)	Sustainable Growth Rate $SGR = RR \times ROE$ $1 - RR \times ROE$ RR= Retention Rate=reserve funds	(Higgins, 2012)
Working Capital Management (WCM)		
AIDs	Aggressive investment decisions= $\frac{\text{Total Current Assets}}{\text{Total Assets}}$	(Meah et al., 2021; Pestonji & Wichitsathian, 2019)
AFD	Aggressive financing decision= $\frac{\text{Total Current Liabilities}}{\text{Total Assets}}$	(Meah et al., 2021; Pestonji & Wichitsathian, 2019)
Environmental Dynamics		
Growth opportunities	<ul style="list-style-type: none"> Company revenue growth 	(Li et al., 2022)
		(Nwude et al., 2021)

Financial Pressure (Financial Distress)	DAR (DEBT Asset Ratio)= Total liabilities of company i in year t/ total assets in year t DAR (DEBT Equity Ratio)= Total liabilities of company i in year t/ total capital in year t	(Altaf, 2020; Li et al., 2022)
Control Variables		
Size	Logarithm of Market Capitalization	(Meah et al., 2021; Pestonji & Wichitsathian, 2019)
Year	Reporting year	(Meah et al., 2021; Pestonji & Wichitsathian, 2019)
Industry	Industrial Type	(Meah et al., 2021; Pestonji & Wichitsathian, 2019)

Source: mapped from previous research

Aggressive investment decision (AID) and Aggressive financing decision (AFD) indicators are used to measure working capital policy. AiD is the ratio between current assets and total assets, while AFD is the ratio between current liabilities and total assets. Sustainable growth is measured from the sustainable growth rate (SGR) using the formula used Higgins (2012).

Company growth opportunities ($\beta 3GROWTH_{it}$) measured from the sales growth of company i in period t. The financial pressure ratio is measured from the Debt Asset Ratio (DAR) and Debt Equity Ratio (DER) proxies. Control variables consist of company size, year and industry. Company size ($SIZE_{it}$) which is the logarithm of the market capitalization of company i period t..

Data analysis uses regression analysis with panel data. Regression analysis with panel data uses combined data between time series data and crosssection data, so it does not require classical regression assumption tests such as: Normality test, Multicollinearity test, Heteroscedasticity Test and Autocorrelation Test. The research model is described in the following mathematical equation:

The Influence of Environmental Dynamics on Working Capital policies

$$AID_{it} = \alpha + \beta 3GROWTH_{it} + \beta 4DAR_{it} + \beta 4Year_{it} + \beta 5SIZE_{it} + \beta 5INDUSTRY_{it} + \epsilon 1 \dots\dots (1a)$$

$$AFD_{it} = \alpha + \beta 3GROWTH_{it} + \beta 4DAR_{it} + \beta 4Year_{it} + \beta 5SIZE_{it} + \beta 5INDUSTRY_{it} + \epsilon 2 \dots\dots (1b)$$

The Effect of Working Capital Policy on Performance

$$ROA_{it} = \alpha + \beta 1AID_{it} + \beta 2AFD_{it} + \beta 4Year_{it} + \beta 5SIZE_{it} + \beta 5INDUSTRY_{it} + \epsilon 3 \dots\dots (2a)$$

$$ROE_{it} = \alpha + \beta 1AID_{it} + \beta 2AFD_{it} + \beta 4Year_{it} + \beta 5SIZE_{it} + \beta 5INDUSTRY_{it} + \epsilon 4 \dots\dots (2b)$$

$$SGR_{it} = \alpha + \beta 1AID_{it} + \beta 2AFD_{it} + \beta 4Year_{it} + \beta 5SIZE_{it} + \beta 5INDUSTRY_{it} + \epsilon 5 \dots\dots (2c)$$

Where: α = intercept. B = slope, ϵ = residual. The goodness of fit of the model is seen from the significance probability parameters of the Anava test (ρ) and the coefficient of determination (R^2). The model fits the data if the F-test significance value (ρ) < 0.05 , and vice versa. Coefficient of Determination (R^2) shows how far the influence of all independent variables is

in explaining variations in the dependent variable. Test the hypothesis with the t-test significance value parameter (ρ). There is a significant influence of the independent variable (X) on the dependent variable (Y), if the t-test significance value (ρ) < 0.05 , and vice versa.

RESEARCH RESULTS

1. Factors Influencing Working Capital Policy

Working capital policy is viewed from Aggressive investment decision (AID) and Aggressive financing decision (AFD), so that the factors that influence working capital policy consist of two equations. The first equation (1a) tests the factors that influence AID (measured from TCA/TA). The second equation (1b) tests the factors that influence AFD (measured from TCL/TA). The results of the model accuracy test are through the F test, the significance value (ρ) < 0.01 in both equations. This shows that the model fits the data. The value of the Adjusted R Square coefficient of determination for the first equation (1a) is 0.375. This reflects that the independent variable is able to explain variations in changes in AID, namely an increase or decrease in the AID variable of 37.5%, while the remaining 62.5% is influenced by other variables outside the model. In the second equation (1b), the value of the Adjusted R Square coefficient of determination is 0.348. This reflects that the independent variable is able to explain variations in changes in AFD, namely an increase or decrease in the dependent variable of 34.8%, while the remainder, namely 65.2, is influenced by other variables outside the model.

Table 2: Factors Influencing Working Capital Policy

Independent Variable	Dependent variable			
	AIDs		AFD	
	β	ρ	β	ρ
(Constant)	-23.79	0.27	0.46	0.98
Environmental Dynamics				
Growth (Growth Opportunities)	-0.02	0.04	0.00	0.99
DAR (Financial Pressure)	-0.57	0.00	0.26	0.02
DER	0.03	0.29	0.02	0.37
Control Variables				
Year	0.01	0.25	0.00	0.97
Size	-0.02	0.19	0.03	0.01
industry	-0.02	0.00	-0.01	0.14
F test (p-value)	0.000		0.000	
R Square	0.375		0.348	

Source: processed from data on non-financial companies listed in the 2019-2022 LQ45 index.

The research results (table 1) found that:

1. Growth Opportunities (Growth) have a negative and significant effect ($\rho=0.04$ or <0.05) on AID. The negative influence can be seen from the positive coefficient value ($\beta=-0.02$). This means that the higher the company's growth opportunities, the lower the proportion of current assets compared to total assets (TCA/TA). On the other hand, the proportion of non-current assets is getting higher, namely for investments such as purchasing research and

development activities, equipment, physical buildings. The lower the AID ratio indicates the company tends to use aggressive working capital management. This shows that Hypothesis 1a is proven.

2. Growth opportunities do not have a significant effect on aggressive working capital policies for financing ($\rho=0.99$ or > 0.05) on AFD. This means that higher or lower growth opportunities are not accompanied by higher or lower working capital policies for financing (AFD). This shows that Hypothesis 1b is not proven.
3. *Leveragenegative* and significant effect ($\rho=0.00$ or <0.05) on AID. The negative influence can be seen from the positive coefficient value ($\beta=-0.57$). The higher the leverage, the lower the proportion of current assets compared to total assets (TCA/TA). This means that the higher the leverage, the more aggressive the company is in using capital for investment. This shows that Hypothesis 2a is not proven.
4. *Leveragepositive* and significant effect ($\rho=0.02$ or <0.05) on AFD. In conditions of financial difficulty, companies tend to use aggressive working capital management for financing. The financial difficulty variable as measured by DAR has a positive and significant effect ($\rho=0.004$ or <0.05) on AFD. The positive influence can be seen from the positive coefficient value ($\beta=0.26$). This means that the higher the company is in financial difficulty, the higher the proportion of current debt compared to total assets (TCL/TA). This shows that financial difficulties make companies use short-term debt for financing. Hypothesis 2b is proven.

2. Effect of Working Capital Policy on SGR

Performance is reviewed from ROA, ROE and SGR, so the influence of working capital policy on performance consists of three equations. The first equation (2a) tests the effect of working capital policy on ROA performance. The second equation (2b) tests the effect of working capital policy on ROE performance. The third equation (2c) tests the effect of working capital policy on SGR performance. The results of the model accuracy test are through the F test, the significance value (ρ) < 0.01 in both equations. This shows that the model fits the data. The Adjusted R Square coefficient of determination values are between 0.114, 0.308, and 0.898. This reflects that the variables TCA/TA and TCL/TA are able to explain variations in changes in ROA, ROE and SGR, namely an increase or decrease in the dependent variable of 11.4%, 0.308%, 0.898%, as for the remainder, namely, 88.6%, 69.2% and 10.2% are influenced by other variables.

The research results (table 32) found that:

1. Working capital policy for investment (AID) has a positive and significant effect on SGR ($\beta=0.01$, $\rho < 0.01$). The more conservative the company is in its working capital policy for investment activities, this is accompanied by an increase in the Sustainable Growth Rate (SGR). On the other hand, the more aggressive a company is in its working capital policy for investment activities, the more it is accompanied by a decrease in the Sustainable Growth Rate (SGR). This shows that Hypothesis 3a is proven.

2. Working capital policy for financing (AFD) has no significant effect on SGR ($\rho = 0.86 > 0.01$). These results indicate that the more aggressive or conservative the company is in its working capital policy for financing activities is not accompanied by an increase or decrease in the Sustainable Growth Rate (SGR). This shows that Hypothesis 3b is not proven.

Table 3: The Effect of Working Capital Policy on Performance

Independent Variable	Dependent variable					
	ROA		ROE		SGR	
	β	ρ	β	ρ	β	ρ
(Constant)	-2456.77	0.10	-4783.45	0.14	0.14	0.09
Working Capital Policy						
AID (TCA/TA)	9.97	0.04	0.75	0.95	0.01	0.00
AFD (TCL/TA)	6.00	0.34	81.88	0.00	0.00	0.86
Control Variables						
Year	1.21	0.10	2.33	0.15	0.00	0.09
Size	2.29	0.01	7.10	0.00	0.00	0.10
industry	-0.42	0.35	-1.82	0.07	0.00	0.29
F test (p-value)	0,000		0,000		0,000	
R Square	0.114		0.308		0.898	

Source: processed from data on non-financial companies listed in the 2019-2022 LQ45 index.

DISCUSSION

The research results generally found that growth opportunities influenced companies to be aggressive in investing. Growth opportunities do not influence the company to be aggressive in funding using short-term debt. On the other hand, financial difficulties influence companies to be aggressive in investing, meaning an aggressive policy for investment financed by debt (not own capital or external capital). In low growth conditions such as the 2020 pandemic, physical assets are valuable assets. This is because using debt will save taxes. Financial difficulties also influence companies to be aggressive in financing through short-term debt. Aggressive working capital policies for investment affect sustainable growth, but aggressive working capital policies for financing do not affect sustainable growth. The following will describe the results of each research hypothesis test.

First, The results of this study found that growth opportunities had a negative and significant effect on AID ($\beta = -0.02$, $\rho = 0.04$). The higher the growth opportunities, the lower the proportion of current assets to total assets. These results indicate that the higher the growth opportunities will be followed by the more aggressive the working capital policy for investment. The results of this study support the proposed hypothesis and support previous research (Kurt et al., 2020; MA Zariyawati et al., 2016; Rehman et al., 2017; Tjandra, 2022) that growth opportunities have a positive effect on aggressive working capital policies for investment.

Second, the hypothesis states that growth opportunities have a negative effect on aggressive working capital policy for financing is not proven ($\rho = 0.99$). The higher the growth opportunity is not followed by the higher proportion of current assets compared to total assets (AFD). This shows that whether the company uses short-term, long-term debt, own capital or external

capital for funding cannot be concluded. The results of this study are different from previous research (Kurt et al., 2020; MA Zariyawati et al., 2016; Rehman et al., 2017; Tjandra, 2022) which found growth opportunities have a negative effect on aggressive working capital policy for financing. This difference could be caused by pandemic conditions as a research context cause each company or sector to have different conditions during the pandemic.

Third, financial pressure during the pandemic made companies prioritize debt for investment financing. This is because debt saves taxes (D. Higgins et al., 2015; R. Higgins, 2012). Financial distress has a negative effect on aggressive working capital policy ($\beta = -0.57$, $\rho = 0.00$), meaning that financial pressure makes the company more aggressive in investing. The results of this study differ from the hypotheses proposed and support previous research (Kurt et al., 2020; MA Zariyawati et al., 2016; Rehman et al., 2017; Tjandra, 2022) that financial distress influence conservative working capital policies for investment. This result could be because companies tend to use debt for investment in conditions of financial stress during the pandemic. This is because debt can save taxes. This also makes the DAR indicator have a significant effect on AID but not DER (table 2). Nevertheless, according to Higgins (2012), debt is inefficient when the company is in a growth condition, even though it saves taxes.

Fourth, financial pressures give rise to aggressive working capital policies for financing through short-term debt. Financial distress has a positive effect on aggressive working capital policies for financing as measured by the AFD ratio ($\rho = 0.02$). The higher financial pressure in the form of high total liabilities will be followed by a higher ratio of current debt to total assets. This means that the high total liabilities make many companies use short-term debt. The results of this study support previous research (Haron & Nomran, 2016; Kurt et al., 2020; MA Zariyawati et al., 2016; Moussa, 2019; Nyeadi et al., 2018; Rehman et al., 2017; Tjandra, 2022) who also found the influence of the level of leverage on working capital policy.

Fifth, an aggressive working capital policy for investment has a positive effect on the Sustainable Growth Rate (SGR) ($\rho = 0.00$). A positive coefficient value ($\beta = 0.01$) indicates that the more aggressive the company is in investing, the higher the sustainable growth as measured by the Sustainable Growth Rate (SGR). The more aggressive the company is in investing, the higher the potential income (ROA and ROE, see table 3) and profitability performance as a source of funding from its own capital. This will support sustainable growth as measured by SGR (D. Higgins et al., 2015; R. Higgins, 2012).

Sixth, aggressive working capital policies for financing have no effect on the Sustainable Growth Rate (SGR) ($\rho = 0.86$). The higher the ratio of current debt to total assets is not accompanied by higher/lower sustainable growth. The results of this study are different from the hypothesis proposed and do not support previous research (D. Higgins et al., 2015; R. Higgins, 2012). This result could be caused by pandemic conditions. Not all companies or industrial sectors are affected by the pandemic. The pandemic affects financial pressure on several companies or industrial sectors. On the other hand, several companies or industrial sectors such as pharmaceuticals, health and telecommunications actually experienced growth opportunities during the pandemic. This makes whether financing through short-term debt influence sustainable growth cannot yet be concluded.

CONCLUSION

Results of this research found that:

- (1) Growth opportunities have a positive effect on aggressive working capital policies for investment,
- (2) Growth opportunities have a negative effect on aggressive working capital policies for financing,
- (3) Financial distress has a negative effect on working capital policies. Aggressive for investment,
- (4) Financial distress has a positive effect on aggressive working capital policy for financing,
- (5) Aggressive working capital policy for investment has a positive effect on SGR,
- (6) Aggressive working capital policy for investment has a positive effect on SGR.

This research has the implication that in conditions of growth opportunities, companies tend to use aggressive working capital management for investment but not for financing. In conditions of financial difficulty, namely in the context of a pandemic, companies tend to use aggressive working capital management for financing. The article provides implications for enriching the working capital management literature amidst dynamic environmental changes.

This study still has several limitations. First, this research does not include industry factors. Working capital and sustainable growth policies may differ based on industrial sector, especially in pandemic conditions. Second, this research has not included the pandemic factor, that is, it has not differentiated between periods before, during and after the pandemic, due to limited sample size because the focus is only on companies listed in LQ45. Future research can include these two variables in the research model.

Reference

- 1) Akbar, M., Akbar, A., & Draz, M.U. (2021). Global Financial Crisis, Working Capital Management, and Firm Performance: Evidence From an Islamic Market Index. *SAGE Open*, 11(2). <https://doi.org/10.1177/21582440211015705>
- 2) Altaf, N. (2020). Working Capital Financing, Firm Performance and Financial Flexibility: Evidence from Indian Hospitality Firms. *Global Business Review*, 1–12. <https://doi.org/10.1177/0972150920961371>
- 3) Altaf, N., & Ahmad, F. (2019). Working capital financing, firm performance and financial constraints: Empirical evidence from India. *International Journal of Managerial Finance*, 15(4), 464–477. <https://doi.org/10.1108/IJMF-02-2018-0036>
- 4) Babcock, G. C. (1970). The Concept of Sustainable Growth. *Financial Analysts Journal*, 26(3), 108–114. <https://doi.org/10.2469/faj.v26.n3.108>
- 5) Bancel, F., & Mittoo, U. R. (2011). Financial flexibility and the impact of the global financial crisis: Evidence from France. *International Journal of Managerial Finance*, 7(2), 179–216. <https://doi.org/10.1108/17439131111122157>

- 6) Baños-Caballero, S., García-Teruel, P.J., & Martínez-Solano, P. (2016). Financing of working capital requirements, financial flexibility and SME performance. *Journal of Business Economics and Management*, 17(6), 1189–1204. <https://doi.org/10.3846/16111699.2015.1081272>
- 7) Bei, Z., & Wijewardana, WP (2012). Financial leverage, firm growth and financial strength in the listed companies in Sri Lanka. *Procedia - Social and Behavioral Sciences*, 40, 709–715. <https://doi.org/10.1016/j.sbspro.2012.03.253>
- 8) Coleman, M., & Wu, M. (2020). Combination of Ant Colony Optimization and K-nearest Neighbors: The Influence of Working Capital Management on Corporate Performance. *Management and Labor Studies*, 45(4), 395–415. <https://doi.org/10.1177/0258042X20939025>
- 9) Haron, R., & Nomran, N.M. (2016). Determinants of working capital management before, during, and after the global financial crisis of 2008: Evidence from Malaysia. *The Journal of Developing Areas*, 50(5), 461–468. <https://doi.org/10.1353/jda.2016.0029>
- 10) Higgins, D., Omer, T. C., & Phillips, J. D. (2015). The Influence of a Firm's Business Strategy on its Tax Aggressiveness. *Contemporary Accounting Research*, 32(2), 674–702. <https://doi.org/10.1111/1911-3846.12087>
- 11) Higgins, R. (1977). Much Growth Can Firms Afford? *Financial Management*, 6(3), 7–16.
- 12) Higgins, R. (2012). Analysis for Financial Management. In *Handbook of Global Supply Chain Management (Tenth Edit)*. The McGraw-Hill/. <https://doi.org/10.4135/9781412976169.n18>
- 13) Kayani, U.N., De Silva, T.-A., & Gan, C. (2019). A systematic literature review on working capital management – an identification of new avenues. *Qualitative Research in Financial Markets*, 11(3), 352–366. <https://doi.org/10.1108/QRFM-05-2018-0062>
- 14) Kurt, Y., Sinkovics, N., Sinkovics, RR, Yamin, M., Ioanid, A., Deselnicu, DC, Militaru, G., Eniola, AA, Olorunleke, GK, Akintimehin, OO, Ojeka, JD, Oyetunji , B., Hadi Putra, PO, Santoso, HB, Part, RC, Tao, EWTNKKMSSLESKCSSC, MP, S., Shalij PR, A., R., ... Fuller, S. (2020). Working Capital Requirements of Manufacturing SMEs: Evidence from Emerging Economy Harsh Partap Singh * and Satish Kumar **, *Business Strategy Series*, 28(4), 1–8. <http://www.ncbi.nlm.nih.gov/pubmed/32368570>
- 15) Li, Z., Jiang, J., Xia, L., & Chu, C. C. (2022). Empirical Research on the Relationship between Industry Working Capital Shortfall and Company Cash Holding in the Same Industry. *Discrete Dynamics in Nature and Society*, 2022. <https://doi.org/10.1155/2022/5146764>
- 16) MA Zariyawati, MN Annuar, & N. Pui-San. (2016). Working capital management determinants of small and large firms in Malaysia. *International Journal of Economics and Management*, 10(2), 365–377.
- 17) Mamilla, R. (2019). A study on sustainable growth rates for firm survival. *Strategic Change*, 28(4), 273–277. <https://doi.org/10.1002/jsc.2269>
- 18) Meah, M.R., Sen, K.K., & Sahabuddin, M. (2021). Do Working Capital Decisions and Efficiency of Working Capital Management Contribute to the Profitability? Evidence from Bangladesh. *Asia-Pacific Journal of Management Research and Innovation*, 17(1-2), 7–16. <https://doi.org/10.1177/2319510x211047368>
- 19) Morshed, A. (2020). Role of working capital management in profitability considering the connection between accounting and finance. *Journal of Accounting Research*, 5(2), 257–267. <https://doi.org/10.1108/AJAR-04-2020-0023>
- 20) Moussa, A. A. (2019). Determinants of working capital behavior: evidence from Egypt. *International Journal of Managerial Finance*, 15(1), 39–61. <https://doi.org/10.1108/IJMF-09-2017-0219>

- 21) Nwude, E.C., Allison, P.U., & Nwude, C.A. (2021). The relationship between working capital management and corporate returns of cement industry of emerging markets. *International Journal of Finance and Economics*, 26(3), 3222–3235. <https://doi.org/10.1002/ijfe.1959>
- 22) Nyeadi, JD, Sare, YA, & Aawaar, G. (2018). Determinants of working capital requirements in listed firms: Empirical evidence using a dynamic system GMM. *Cogent Economics and Finance*, 6(1), 1–14. <https://doi.org/10.1080/23322039.2018.1558713>
- 23) Pestonji, C., & Wichitsathian, S. (2019). The Impacts of Working Capital Policy on Firms' Performances: An Empirical Study on Thai Listed Companies in the Production Sector. *Asia-Pacific Contemporary Finance and Development (International Symposia in Economic Theory and Econometrics)*, 26, 39–51. <https://doi.org/10.1108/S1571-038620190000026003>
- 24) Raby, S., Hart, M., & Harney, B. (2022). In search of the next growth episode: How firms catalyze and sustain periods of high growth. *International Small Business Journal: Researching Entrepreneurship*, 40(6), 671–683. <https://doi.org/10.1177/02662426221108631>
- 25) Rehman, A.U., Wang, M., & Kabiraj, S. (2017). Working capital management in Chinese firms: An empirical investigation of determinants & adjustment towards a target level using dynamic panel data model. *Afro-Asian Journal of Finance and Accounting*, 7(1), 84–105. <https://doi.org/10.1504/AJFA.2017.082930>
- 26) Rey-Ares, L., Fernández-López, S., & Rodeiro-Pazos, D. (2021). Impact of working capital management on profitability for Spanish fish canning companies. *Marine Policy*, 130. <https://doi.org/10.1016/j.marpol.2021.104583>
- 27) Tjandra, CK (2022). The determinants of working capital management in Indonesia and the Philippines. *Journal of Business Strategy*, 26(1), 110–121. <https://doi.org/10.20885/jsb.vol26.iss1.art8>
- 28) Uremadu, S.O., Egbide, B.-C., & Enyi, P.E. (2012). Working Capital Management, Liquidity and Corporate Profitability Among Quoted Firms in Nigeria Evidence from the Productive Sector. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 2(1), 80–97. <https://doi.org/10.6007/IJARAFMS>
- 29) Utami, D., Muthia, F., & Thamrin, KMH (2018). Sustainable Growth: Grow and Broke Empirical Study on Manufacturing Sector Companies Listed on the Indonesia Stock Exchange. *The 2018 International Conference of Organizational Innovation*, Page 820 *KnE Social Sciences*, 2018, 820–834. <https://doi.org/10.18502/kss.v3i10.3427>
- 30) Yeboah, B., & Agyei, K. (2012). Working Capital Management and Cash Holdings of Banks in Ghana. *European Journal of Business and Management*, 4(13), 2222–2839. <https://doi.org/10.1.1.734.9710&rep=rep1&type=pdf>