






# “Sustainable growth, financial flexibility and working capital management in family firms: An empirical study in Indonesia”

<b>AUTHORS</b>	Tri Purwani  Harto Listijo  Naziruddin Abdullah  Bambang Sudiyatno 
<b>ARTICLE INFO</b>	Tri Purwani, Harto Listijo, Naziruddin Abdullah and Bambang Sudiyatno (2024). Sustainable growth, financial flexibility and working capital management in family firms: An empirical study in Indonesia. <i>Investment Management and Financial Innovations</i> , 21(4), 267-277. doi: <a href="https://doi.org/10.21511/imfi.21(4).2024.21">10.21511/imfi.21(4).2024.21</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/imfi.21(4).2024.21">http://dx.doi.org/10.21511/imfi.21(4).2024.21</a>
<b>RELEASED ON</b>	Friday, 15 November 2024
<b>RECEIVED ON</b>	Wednesday, 31 July 2024
<b>ACCEPTED ON</b>	Wednesday, 30 October 2024
<b>LICENSE</b>	 This work is licensed under a <a href="https://creativecommons.org/licenses/by/4.0/">Creative Commons Attribution 4.0 International License</a>
<b>JOURNAL</b>	"Investment Management and Financial Innovations"
<b>ISSN PRINT</b>	1810-4967
<b>ISSN ONLINE</b>	1812-9358
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

40



NUMBER OF FIGURES

0



NUMBER OF TABLES

6

© The author(s) 2025. This publication is an open access article.



## BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Received on:** 31<sup>st</sup> of July, 2024

**Accepted on:** 30<sup>th</sup> of October, 2024

**Published on:** 15<sup>th</sup> of November, 2024

© Tri Purwani, Harto Listijo,  
Naziruddin Abdullah, Bambang  
Sudiyatno, 2024

Tri Purwani, Associate Professor,  
Dr. (Financing), Department of  
Management, Faculty of Economics  
and Business, AKI University,  
Indonesia. (Corresponding author)

Harto Listijo, Assistant Professor, Dr.  
(Financing), Department of Informatics  
Engineering, Faculty of Informatics  
Engineering, AKI University, Indonesia.

Naziruddin Abdullah, Professor,  
Dr. (Economics, Business and  
Management), Universiti Kuala  
Lumpur, Malaysia.

Bambang Sudiyatno, Associate  
Professor, Department of Management,  
Universitas Stikubank Semarang  
[University Stikubank (Unisbank)  
Semarang], Indonesia.



This is an Open Access article,  
distributed under the terms of the  
[Creative Commons Attribution 4.0  
International license](https://creativecommons.org/licenses/by/4.0/), which permits  
unrestricted re-use, distribution, and  
reproduction in any medium, provided  
the original work is properly cited.

### Conflict of interest statement:

Author(s) reported no conflict of interest

Tri Purwani (Indonesia), Harto Listijo (Indonesia), Naziruddin Abdullah (Malaysia), Bambang Sudiyatno (Indonesia)

# SUSTAINABLE GROWTH, FINANCIAL FLEXIBILITY AND WORKING CAPITAL MANAGEMENT IN FAMILY FIRMS: AN EMPIRICAL STUDY IN INDONESIA

## Abstract

Family firms play an important role in the economies of developing countries such as Indonesia. Proper working capital management is necessary to support the sustainable growth of family firms. This study aims to analyze the characteristics of sustainable growth and working capital management of family firms. The study analyzes family firms by comparing them with non-family firms listed in the LQ45 index of the Indonesian capital market. Using quantitative methods, logistic regression is used to test the hypotheses. The survey sample covers 280 companies from 2015 to 2022. The results of the study show that the elements of sustainable growth of family firms differ from non-family firms only in the leverage element. Family firms tend to have lower leverage than non-family firms. Family firms tend to have more conservative working capital management policies for investment and financing than non-family firms. Family firms also have longer days of accounts payable outstanding than non-family firms, while days of inventory outstanding and days of sales outstanding are not significantly different. This study suggests that family firms should implement a moderate working capital policy to strengthen sustainable growth rates.

## Keywords

family firms, financial flexibility, leverage element, non-family firms, sustainable growth, working capital management

## JEL Classification

G30, G32, G34

## INTRODUCTION

Family businesses are playing an increasingly important role in the global economy. Once overlooked in Western economies, family businesses are increasingly playing a role in future growth, particularly in Asia. Family businesses will account for 40% of the world's largest companies by 2025, a sharp increase from just 15% in 2010 (Björnberg et al., 2016). Family businesses are estimated to have an economic impact on global GDP reaching more than 70% (Osunde, 2017).

In Indonesia, most firms are born and grow out of family businesses. In fact, many large firms in Indonesia are still family owned even though they have gone public. Some family firms have long lives of up to 50 years or even hundreds of years over several generations (Bennedsen et al., 2022). Several other short-lived firms were unable to survive amidst environmental dynamics (Yilmaz et al., 2021). Sustainable growth is an important strategy in family firms, especially amidst increasingly dynamic environmental changes (Bakoğlu & Yıldırım, 2016).

Working capital management policies are important for firm survival and profitability, but have not been explored in the literature regard-

ing practices in family firms (Franzoi et al., 2021; Sah et al., 2022). Several studies have been carried out, but more in the context of family firms in developed countries, such as Germany (Franzoi et al., 2021), USA (Sah et al., 2022), and China (Bin-Feng et al., 2022). Limited studies in developing countries such as Indonesia. Several of these studies generally find that family firms tend to be conservative in working capital management, placing greater current assets in asset positions, inventory periods, collecting receivables, paying accounts payable, and avoiding risky investments. However, whether conservative policies in working capital management have an effect on financial flexibility and sustainable growth in family firms is still a research gap.

## 1. LITERATURE REVIEW AND HYPOTHESIS

Family firms were initially founded by family founders as small-scale businesses and then grew, developing continuously into large-scale businesses (Björnberg et al., 2016). The growth in the ability of family businesses to produce products or services is supported by growth in resource capacity (assets, capital). To support sustainable growth in capability (sales) and size (assets), it is not enough for family firms to only use internal capital but to use external capital obtained either through debt or selling shares on the capital market. Family firms that have gone public generally maintain greater family control and ownership so that ownership of the firm can be passed on to the next generation (Bakoğlu & Yıldırım, 2016; Yılmaz et al., 2021).

Sustainable growth is aimed more at the concept of sustainable growth in the life cycle of a product or business without losing resources to support that growth (Raby et al., 2022; Utami et al., 2018). To grow sustainably, firms need assets to expand production, expand market share, and expand existing businesses. Sustainable growth shows the ability to grow continuously over one product or business life cycle, even over several generations. The sustainable growth rate differentiates it from short-term growth (actual growth rate) and internal growth rate (Bei & Wijewardana, 2012; Mamilla, 2019; Raby et al., 2022). IGR is more than growth supported by own capital, while sustainable growth from a financial perspective is optimal growth without running out of financial resources and without depending on the use of external finance (Higgins, 1977).

Sustainability is an important aspect of family businesses to be passed down over several gen-

erations, so family firms tend not to be interested in risky short-term profits. A study Bin-Feng et al. (2022) in China found that family firms, compared to non-family firms, are more focused on long-term goals and less interested in taking short-term risks. Faccio et al. (2011) family shareholders are more risk averse than other types of shareholders because the investment value is large and often undiversified.

Based on the Dynamic Capability Theory (Teece, 2018; Teece et al., 1997), dynamic capabilities are a firm's core competency to survive amidst dynamic environmental changes. Dynamic capabilities need to be supported by financial flexibility (Yi, 2020). Financial flexibility is the extent to which financial resources are able to support a business's ability to survive and seize opportunities amidst environmental changes (Bancel & Mittoo, 2011). Financial flexibility requires liquid assets that are easy to reconfigure and have low financial constraints. Liquid assets come from cash holdings, while low financial constraints can be seen from low leverage (Altaf, 2024; Islam et al., 2019; Setianto & Kusumaputra, 2019). Family firms tend to avoid large proportions of debt and even tend to have zero leverage (Fardnia et al., 2023). This is because debt often reduces a firm's flexibility both to survive in crisis conditions and to capture unexpected opportunities from environmental changes. Environmental changes are increasingly dynamic, the economic crisis, financial crisis, and global pandemic have provided many valuable lessons for family firms to be more careful in debt policy.

Family businesses tend to be more careful in managing working capital by adopting conservative strategies to avoid excessive risk and for the long-term survival of the firm (Sah et al., 2022). Family firms tend to use a conservative approach in work-

ing capital management for investments. Family firms tend to place a larger proportion of current assets and avoid risky investments. Family firms tend to prioritize long-term business sustainability over short-term profits. This makes the proportion of AIDs larger than non-family firms. An aggressive working capital policy for investment known as Aggressive investment decision (AID) (Meah et al., 2021; Pestonji & Wichitsathian, 2019) is characterized by a small proportion of current assets compared to total assets. Current assets are used for investment activities in the form of research and development, equipment, and factory expansion. On the other hand, firms that are conservative in investment are characterized by a large proportion of current assets compared to their total assets. Family firms generally tend to have a larger proportion of current assets than current liabilities for financial flexibility and reducing liquidity risk (Kayani et al., 2019).

Based on Dynamic Capability Theory (Teece, 2018), current assets are liquid assets that are valuable amidst environmental dynamics. The availability of current assets and low leverage will increase financial flexibility to survive and capture opportunities in environmental changes. Caprio et al. (2020) stated that family firms have more cash than non-family firms, with an average difference of 2.3 % of total assets. Kieschnick et al. (2013) through a study analyzing US public firms from 1990 to 2006, concluded that the average firm used 27% of their assets in working capital. This evidence suggests that family firms are more likely to adopt policies that focus on long-term corporate survival rather than risky growth and profitability. However, based on previous studies, it can be seen that family firms generally use a conservative strategy in working capital to be more careful in investment.

Previous studies (Haron & Nomran, 2016; Kurt et al., 2020; Moussa, 2019; Nyeadi et al., 2018; Rehman et al., 2017; Tjandra, 2022) suggest that debt has a negative impact on working capital along with high-interest and installment costs. Firms with high debt need to pay higher interest and installments, reducing their cash for working capital. The higher the debt, the greater the short-term burden. This will give the firm the poten-

tial to lack the funds needed for daily operations. High debt will also reduce financial flexibility for the firm. Previous studies (Franzoi et al., 2021; Sah et al., 2022) show that family firms generally have long inventory periods, longer accounts receivable payments, and short trade/trade payable payment periods. This is done by management to maintain relationships with suppliers and buyers in business-to-business.

Based on the theory and general review of previous research, as explained above, family companies tend to have different sustainable growth element characteristics than non-family companies. Family companies also tend to be conservative in working capital management, which can affect financial flexibility.

This paper aims to investigate the component characteristics of sustainable growth and working capital management. In the context of environmental dynamics, this paper also examines how components of WCM affect the financial flexibility of Indonesia's developing economy. Based on ideas drawn from the literature, this study presents the following hypotheses to guide empirical research:

- $H_1$ : *Family firms have different element characteristics of sustainable growth compared to non-family firms.*
- $H_2$ : *Family firms have a more conservative working capital in investment than non-family firms.*
- $H_3$ : *Family firms have a working capital policy that is more conservative in financing than non-family firms.*
- $H_{4a}$ : *Family firms have a longer days of inventory outstanding.*
- $H_{4b}$ : *Family firms have a longer days of sales outstanding.*
- $H_{4c}$ : *Family firms have a shorter days of payable outstanding.*
- $H_5$ : *A conservative working capital policy has a positive effect on financial flexibility.*

$H_6$ : Aggressive working capital for financing has a negative effect on financial flexibility.

$H_7$ : Inventory days have a positive effect on financial flexibility in family firms.

$H_8$ : Receivables receipt days have a positive effect on financial flexibility in family firms.

$H_9$ : Accounts payable payment days have a negative effect on financial flexibility in family firms.

## 2. METHODOLOGY

The research objects are firms listed in the LQ45 index. This study takes the object of firms listed in the LQ45 index to observe working capital management and sustainable growth levels from a strategic aspect amidst environmental dynamics and not due to other performance factors such as purchasing wrong raw materials, poor sales, or financial difficulties. For example, a conservative strategy in working capital management, on the one hand, indicates a more careful effort in investment policy and maintaining long-term relationships with suppliers and customers. On the other

hand, a large proportion of current assets can indicate products that are not selling well in the market, wrong purchasing policies, or customers not paying because of the downturn in the market.

The study was conducted using financial report data from non-financial firms listed in the LQ45 index. Data were obtained through secondary data in the form of a summary of financial reports in the book of the Indonesian Capital Market Directory in 2023. Non-financial firms were excluded from the sample because of different financial reporting characteristics. Samples were taken using historical data from 2015–2022 (8 years). The reasons for choosing the sample year are related to the uncertainty of the COVID-19 pandemic conditions. Based on these criteria, a sample size of 35 non-financial firms was obtained from the 45 firms listed in the LQ45 index, so that in total complete data were obtained for 280 sample firm-observations. The measurement variables are explained in Table 1.

Data analysis uses panel data regression analysis. Panel regression uses a combination of time series and cross-sectional data. Therefore, it does not require the classic tests of regression assumptions such as normality test, multicollinearity test, het-

**Table 1.** Measurement variables

Variable	Measurement	Reference
<b>Dependent</b>		
SGR (Sustainable Growth rate)	SGRI = RR x ROE RR= Retention Rate = reserve funds SGRII = NPM x ATO x RR x FL	Higgins (1977)
FAM	Family firms = 1, Non-family firms = 0	Franzoi et al. (2021), Sah et al. (2022)
FF	Financial Flexibility, Code = 1, if cash holding is above the industry average, DAR is below the industry average, Code = 0, others.	Altaf (2024)
<b>Working Capital Management (WCM)</b>		
AID	Aggressive investment decisions = Total Current Assets / TotalAssets	Meah et al. (2021), Pestonji & Wichitsathian (2019)
AFD	Aggressive financing decisions = Total Current Liabilities / TotalAssets	Meah et al. (2021), Pestonji & Wichitsathian (2019)
Days in inventory outstanding (DIO)	(Average inventory/cost of goods sold)*365	Nwude & Nwude (2021), Meah et al. (2021), Rey-Ares et al. (2021), Coleman et al. (2020), Fernández-López et al. (2020)
Days in sales outstanding (DSO)	(Average Receivables*365)/Sales	Meah et al. (2021), Rey-Ares et al. (2021), Fernández-López et al. (2020)
Days in payables outstanding (DPO)	(Average Payables*365)/Cost of Goods Sold	Nwude & Nwude (2021), Meah et al. (2021), Rey-Ares et al. (2021), Coleman et al. (2020), Fernández-López et al. (2020)
<b>Control Variables</b>		
PAN	Pandemic Year = 1, others = 0	
Size	Logarithm of Market Capitalization	Meah et al. (2021), Pestonji & Wichitsathian (2019)
Industry	Industrial Type	Meah et al. (2021), Pestonji & Wichitsathian (2019)

eroscedasticity test, and autocorrelation test. The model of family firm characteristics based on elements of sustainable growth can be described in mathematical equations as follows:

$$FAM_{it} = \alpha + \beta_1 NPM_{it} + \beta_2 ATO_{it} + \beta_3 R_{it} + \beta_4 LEV_{it} + \beta_6 PAN_{it} + \beta_7 SIZE_{it} + \beta_8 INDUSTRY_{it} + \varepsilon_1, \quad (1)$$

$$FAM_{it} = \alpha + \beta_1 RR_{it} + \beta_2 ROE_{it} + \beta_6 PAN_{it} + \beta_7 SIZE_{it} + \beta_8 INDUSTRY_{it} + \varepsilon_2. \quad (2)$$

The characteristic model of family firms based on working capital management can be described in a mathematical equation as follows:

$$FAM_{it} = \alpha + \beta_1 AID_{it} + \beta_2 AFD_{it} + \beta_3 DIO_{it} + \beta_4 DSO_{it} + \beta_5 DPO_{it} + \beta_6 PAN_{it} + \beta_7 SIZE_{it} + \beta_8 INDUSTRY_{it} + \varepsilon_3. \quad (3)$$

The model of the influence of working capital management on financial flexibility can be described in a mathematical equation as follows:

$$FF_{it} = \alpha + \beta_1 AID_{it} + \beta_2 AFD_{it} + \beta_3 DIO_{it} + \beta_4 DSO_{it} + \beta_5 DPO_{it} + \beta_6 PAN_{it} + \beta_7 SIZE_{it} + \beta_8 INDUSTRY_{it} + \varepsilon_4, \quad (4)$$

**Table 2.** Description of variables

Source: Processed data.

Descriptions	SGR(x)	AID(x)	AFD(x)	DIO(days)	DSO(days)	DPO(days)
<b>All Samples</b>						
Mean	0.24	0.40	0.22	81.73	58.34	69.55
Maximum	2.91	0.77	0.70	407.00	384.00	663.00
Minimum	-0.26	0.04	0.04	2.00	0.00	1.00
Std. Dev.	0.29	0.16	0.13	72.64	50.62	92.01
Observations	280	280	280	280	280	280
<b>Family firm</b>						
Mean	0.22	0.44	0.21	87.48	65.78	68.26
Maximum	2.91	0.77	0.60	407.00	384.00	663.00
Minimum	-0.26	0.04	0.05	3.00	1.00	1.00
Std. Dev.	0.29	0.16	0.11	69.48	56.51	87.10
Observations	189	189	189	189	189	189
<b>Non-Family Firms</b>						
Mean	0.26	0.32	0.24	69.78	42.88	72.22
Maximum	1.87	0.71	0.70	300.00	178.00	561.00
Minimum	-0.26	0.07	0.04	2.00	0.00	1.00
Std. Dev.	0.29	0.16	0.16	77.85	30.26	101.90
Observations	91	91	91	91	91	91

where  $\alpha$  = intercept,  $\beta$  = slope, and  $\varepsilon$  = residual. The goodness of fit of the model is seen from the significance probability parameters of the F-test ( $\rho$ ) and the coefficient of determination ( $R^2$ ). The model fits the data if the significance value of the F-test ( $\rho$ ) < 0.05, and vice versa. The 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 ( $\rho$ ). There is a significant influence of the independent variable on the dependent variable if the t-test significance value ( $\rho$ ) < 0.05, and vice versa.

### 3. RESULTS

The study results (Table 2) found that the average SGR of family firms (mean = 0.22x) was slightly lower than the average SGR of non-family firms (mean = 0.26x). On average, family firms were more conservative than non-family firms, as indicated by a higher average AID and a lower average AFD. A higher average AID of family firms (mean = 0.44x) indicated a higher proportion of liquid assets to total assets compared to the AID of non-family firms (mean = 0.32x). A lower average AFD of family firms (mean = 0.21x) indicated a lower proportion of short-term debt to total assets compared to non-family firms (mean = 0.24x). Family firms were also more conservative in their cash conversion cycle with longer DIO, DPO, and DSO values.

**Table 3.** Correlation

Source: Processed secondary data.

Variables	SGRI	SGRII	FF	AID	AFD	DIO	DSO	DPO
SGRI	1							
SGRII	0.235**	1						
FF	0.218**	-0.145**	1					
AIDs	0.193**	-0.148**	0.724**	1				
AFD	0.043	0.271**	-0.120*	0.140*	1			
DIO	-0.032	-0.048	-0.050	-0.052	.027	1		
DSO	-0.084	-0.166**	0.131*	0.164**	-0.191**	0.019	1	
DPO	0.379**	0.647**	0.043	-0.002	-0.320**	-0.031	-0.050	1

Note: \*\* significant < 0.05, \* significant < 0.10.

The pairwise correlation matrix (Table 3) shows that the correlation coefficient between the two SGR measures (SGRI and SGRII) is 0.235 ( $\rho < 0.05$ ). The correlation coefficient between independent variables is less than 0.50, indicating that there is no high multicollinearity problem so that further regression analysis can be carried out.

The results of testing the characteristics of family firms based on the level of sustainable growth in terms of SGRI (Model I) (Table 4) and SGRII (Model III) (Table 5) show that the model results do not meet the goodness of fit assumption. This means that there is no significant difference in the level of sustainable growth between family and non-family firms. The Hosmer-Lemeshow value ( $p$ ) is <0.05 for both Model I and Model III. This does not meet the model fit assumption (empirical data are different from the model), even though the Wald-test ( $p$ ) value is significant (<0.05) in Model I.

Based on Table 6, Model I is a logistic regression model of working capital management in family firms (Hosmer-Lemeshow  $n$  value ( $p$ ) > 0.05). Model II is a logistic regression model of working capital management on financial flexibility (Hosmer-Lemeshow  $n$  value ( $p$ ) > 0.05). In Model I, the variability of the dependent variable that can be explained by the variability of the independent variable is 18.4% based on Cox and Snell's R Square and 25.8% based on Nagelkerke's R Square. In Model II, the variability in the dependent variable that can be explained by the variability in the independent variable is 55.1% based on Cox and Snell's R Square and 75.6% based on Nagelkerke's R Square.

The results of hypothesis testing (Table 6) through the Wald test (Model I) show that family firms differ from non-family firms in terms of using AID, AFD, and DPO ( $\rho < 0.01$ ). These results show that Hypothesis 2, Hypothesis 3 and Hypothesis 4c are

**Table 4.** Family firm profile in terms of SGRI and SGRI elements

Source: Processed secondary data.

Independent Variables	Dependent = FAM					
	Model I: SGRI			Model II: SGRI Elements		
	B	Wald	Exp(B)	B	Wald	Exp(B)
Constant	1.363	.458	3.909	2.843	1.878	17.167
SGRI	.007	.002	1.007			
RR				.004	.027	1.004
ROE				-.021	*** 11.32	.979
SIZE	-.028	.012	.972	-.174	.426	.841
PAN	-.055	.020	.947	-.124	.097	.883
IND	-.094	2.299	.910	-.091	2.096	.913
Hosmer-Lemeshow value	34.267			18.120		
P	.000			.020		
Cox & Snell R Square	.008			.053		
Nagelkerke R Square	.011			.074		

Note: \*\* significant < 0.05, \*\*\* significant < 0.01.

**Table 5.** Family firm profile in terms of SGRII and SGRII elements

Source: Processed secondary data.

Independent Variables	Dependent= FAM					
	Model III: SGRII			Model IV: SGRII Elements		
	B	Wald	Exp(B)	B	Wald	Exp(B)
Constant	1.086	.288	2.962	-.879	.154	.415
SGRII	-.983	***3.89	.374			
NPM				.007	.473	1.007
ATR				.338	2.238	1.403
RR				.004	.032	1.004
LEV				-1.751	***7.135	.174
SIZE	.035	.018	1.035	.324	1.223	1.383
PAN	-.015	.002	.985	-.003	.000	.997
IND	-.092	2.172	.912	-.093	1.872	.911
Hosmer-Lemeshow value	19.441			11.411		
p	.012			.179		
Cox & Snell R Square	.024			.038		
Nagelkerke R Square	.034			.053		

Note: \*\* significant &lt; 0.05, \*\*\* significant &lt; 0.01.

**Table 6.** Family firm profile in terms of working capital management

Source: Processed secondary data.

Independent Variables	Model I Dependent = FAM			Model II Dependent = FF		
	B	Wald	Exp(B)	B	Wald	Exp(B)
AID	5.415	*** 23.857	1.787	27.760	*** 50.153	1.14x10 <sup>12</sup>
AFD	-4.725	*** 15.954	0.009	-17.412	*** 20.264	0.001
DIO	0.001	0.519	1.000	0.001	1.775	1.000
DSO	0.001	6.264	1.000	0.001	1.913	1.000
DPO	0.001	** 4.374	0.999	0.001	.030	1.000
SIZE	0.374	1.156	1.453	1.063	* 2.720	2.895
PAN	0.201	0.197	1.223	0.167	.059	1.182
IND	0.024	0.077	1.024	0.329	3.372	1.389
Constant	-3.093	1.144	0.045	-18.213	10.213	1.230E-08
Hosmer-Lemeshow	9.770			12.054		
p	.282			0.149		
Cox & Snell R Square	.184			0.551		
Nagelkerke R Square	.258			0.756		

Note: \*\* significant &lt; 0.05, \*\*\* significant &lt; 0.01.

supported. Family firms are generally more conservative in investment by placing greater current assets (AID), a smaller proportion of current liabilities (negative coefficient on AFD), and a lower trade payable repayment period (DPO). Other working capital components, DIO and DSO, did not find significant differences between family and non-family firms ( $\rho > 0.5$ ). These results show that Hypothesis 4a and Hypothesis 4b are not supported.

The results of hypothesis testing through the Wald test (Model II) show that financial flexibility is different regarding the use of AID and the use of

AFD ( $\rho < 0.01$ ). These results show that Hypothesis 5 and Hypothesis 6 are supported. Working capital management that is conservative in investment and aggressive in financing is followed by higher financial flexibility. Other working capital components are days in DIO, DPO, and DSO. No significant differences were found between family and non-family firms ( $\rho > 0.1$ ). These results show that Hypothesis 7 is supported, but Hypothesis 8 and Hypothesis 9 are not supported.

Family firms have an AID of  $e^{5.415}$  or 1.787 (x) higher than non-family firms. The AFD factor has a re-

gression coefficient of  $-4.725$ , meaning that family firms have an AFD of  $e^{-4.725}$  or  $0.009$  (x) lower than non-family firms. Family firms have an AFD of  $e^{-0.001}$  or  $1.001$  (x) lower than non-family firms. Financial flexibility above the industry average has an AID of  $e^{27.760}$  or  $1.14 \times 10^{12}$  (x) higher than firms with financial flexibility below the industry average. Firms with financial flexibility above the industry average have an AFD of  $e^{-17.412}$  or  $0.001$  (x) lower than firms with financial flexibility below the industry average.

## 4. DISCUSSION

There are several findings from this study. First, the SGR of family firms does not differ significantly from that of non-family firms. The results found that family firms differ from non-family firms only in the leverage element. These results support previous studies (Fardnia et al., 2023) that stated that family firms tend to avoid debt and even tend to have zero leverage. This is because debt often reduces a firm's flexibility.

Second, family businesses can operate by maintaining the proportion of working capital in the form of current assets relative to non-current assets. Current assets are liquid assets for a firm's flexible ability to adapt to both seize opportunities and survive amidst environmental changes. The results of this study found that family firms tend to be conservative in working capital management. Family firms tend to avoid risky investments and keep larger current assets to avoid liquidity risks that could threaten the firm's survival. Family firms also tend to use lon-

ger inventory cycles than non-family firms to avoid risk. These results support previous studies (Sah et al., 2022) that stated that family firms tend to adopt a conservative strategy by being more careful in managing working capital for a firm's survival. Conservative policies are also needed for financial flexibility (Fardnia et al., 2023) and avoiding excessive risks (Sah et al., 2022).

Third, family companies must remain oriented toward long-term relationships with suppliers and customers. Family firms are generally more conservative in shorter DPO periods. The basic reason why family businesses use more working capital must be seen from the character and focus of the family business because family businesses are long-term oriented (Franzoi et al., 2021; Sah et al., 2022). Therefore, family businesses value relationships with suppliers and customers. Other working capital components are days in DIO and DSO. No significant differences were found between family and non-family firms. Inventory that is too high, on the one hand, maintains customer relationships, on the other hand, it can be caused by wrong purchasing policies or because inventory is old or cannot be sold. Too little inventory can cause deliveries not to be made when there is demand from customers.

Fourth, low leverage is beneficial for family businesses in terms of financial flexibility. Financial flexibility in family firms is needed to generate sufficient cash flow to fund business opportunities and growth without endangering its financial stability (Arbogast & Kumar, 2018; Ferrando et al., 2017; Marchica & Mura, 2010).

---

## CONCLUSION

This study aims to analyze the sustainable growth profile and working capital management of 280 family companies listed on the LQ45 stock index in Indonesia. The results show that the sustainable growth rate of family companies is no different from non-family companies. Family firms differ from non-family firms only in the leverage element of SGR. Family firms also tend to be conservative in working capital management. Family firms tend to have larger liquid assets and tend to be more cautious in investing. Liquid assets are also liquid assets that are more flexible to survive and capture opportunities from environmental changes. Family businesses also tend to be conservative in financing. This is because most current liabilities will reduce net working capital and financial flexibility. Family businesses also tend to have longer debt repayment terms. On the other hand, days in inventory outstanding (DIO) and days in sales outstanding (DSO) do not differ significantly between family and non-family firms. Thus, family businesses need to implement moderate policies in working capital management in order to maintain the existence of sustainable growth, not limited to firms included in the LQ 45 index category.

## AUTHOR CONTRIBUTIONS

Conceptualization: Tri Purwani, Harto Listijo.

Data curation: Harto Listijo, Naziruddin Abdullah, Bambang Sudiyatno.

Formal analysis: Tri Purwani, Naziruddin Abdullah.

Funding acquisition: Tri Purwani.

Investigation: Tri Purwani, Bambang Sudiyatno.

Methodology: Tri Purwani, Naziruddin Abdullah.

Project administration: Harto Listijo.

Resources: Tri Purwani.

Software: Harto Listijo.

Validation: Bambang Sudiyatno, Harto Listijo, Naziruddin Abdullah.

Visualization: Bambang Sudiyatno.

Writing – original draft: Tri Purwani, Harto Listijo.

Writing – review & editing: Tri Purwani, Naziruddin Abdullah, Bambang Sudiyatno.

## ACKNOWLEDGMENTS

The authors would like to thank the Head of Research and Community Service at AKI University who has supported funding for this research. Thank you also to fellow Faculty of Economics and Business lecturers, AKI University who have helped provide the facilities needed for this research.

## REFERENCES

- Altaf, N. (2024). Working Capital Financing, Firm Performance and Financial Flexibility: Evidence from Indian Hospitality Firms. *Global Business Review*, 25(2\_ suppl), S199-S210. <https://doi.org/10.1177/0972150920961371>
- Arbogast, S. V., & Kumar, P. (2018). Financial Flexibility and Opportunity Capture: Bridging the Gap Between Finance and Strategy. *Journal of Applied Corporate Finance*, 30(1), 23-29. <https://doi.org/10.1111/jacf.12274>
- Bakoğlu, R., & Yıldırım, O. B. A. (2016). The Role of Sustainability in Long Term Survival of Family Business: Henokiens Revisited. *Procedia - Social and Behavioral Sciences*, 235(October), 788-796. <https://doi.org/10.1016/j.sbspro.2016.11.081>
- 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>
- Bei, Z., & Wijewardana, W. P. (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>
- Bennedsen, M., Lu, Y., & Mehrotra, V. (2022). A Survey of Asian Family Business Research. *Asia-Pacific Journal of Financial Studies*, 51(1), 7-43. <https://doi.org/10.1111/ajfs.12363>
- Bin-Feng, C., Mirza, S. S., Ahsan, T., Safdar, R., Iqbal, A., & Hayat, M. (2022). Family control and corporate risk-taking in China: Does working capital strategy matter? *Economic Research-Ekonomska Istrazivanja*, 35(1), 4280-4299. <https://doi.org/10.1080/1331677X.2021.2013270>
- Björnberg, Å., Dias, A. K., & Elstrodt, H.-P. (2016). Fine-tuning family businesses for a new era. *McKinsey & Company*, 1, 17.
- Caprio, L., Del Giudice, A., & Signori, A. (2020). Cash holdings in family firms: CEO identity and implications for firm value. *European Financial Management*, 26(2), 386-415. <https://doi.org/10.1111/eufm.12233>
- Coleman, M., Wu, M., & Baidoo, M. (2020). Corporate Governance and Working Capital Policy: An Unobserved Influence. *Emerging Economy Studies*, 6(1), 106-122. <https://doi.org/10.1177/2394901520907710>
- Faccio, M., Marchica, M. T., & Mura, R. (2011). Large shareholder diversification and corporate risk-taking. *Review of Financial Studies*, 24(11), 3601-3641. <https://doi.org/10.1093/rfs/hhr065>
- Fardnia, P., Kooli, M., & Kumar, S. (2023). The zero-leverage policy and family firms. *Managerial Finance*, 49(9), 1420-1437. <https://doi.org/10.1108/MF-09-2022-0439>
- Fernández-López, S., Rodeiro-Pazos, D., & Rey-Ares, L. (2020). Effects of working capital management on firms' profitability: evidence from cheese-producing companies. *Agribusiness*, 36(4), 770-791. <https://doi.org/10.1002/agr.21666>
- Ferrando, A., Marchica, M. T., & Mura, R. (2017). Financial Flexibility and Investment Ability

- Across the Euro Area and the UK. *European Financial Management*, 23(1), 87-126. <https://doi.org/10.1111/eufm.12091>
15. Franzoi, F., Mietzner, M., & Thelemann, F. (2021). The influence of family board involvement on earnings management. *Corporate Ownership and Control*, 18(2), 106-123. <https://doi.org/10.22495/cocv18i2art8>
  16. Haron, R., & Nomran, N. M. (2016). Determinants of Working Capital Management Before, During, and After The Global Financial Crisis of 2008. *The Journal of Developing Areas*, 50(5), 461-468. <https://www.jstor.org/stable/26415610>
  17. Higgins, R. C. (1977). How Much Growth Can a Firm Afford? *Financial Management*, 6(3), 7. <https://doi.org/10.2307/3665251>
  18. Islam, R., Wang, M., & Dewri, L. V. (2019). Financial Flexibility - A Synthesis of Literature Review. *International Journal of Accounting and Financial Reporting*, 9(1), 245. <https://doi.org/10.5296/ijaf.v9i1.13195>
  19. 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>
  20. Kieschnick, R., Laplante, M., & Moussawi, R. (2013). Working Capital Management and Shareholders' Wealth. *Review of Finance*, 17(5), 1827-1852. <https://doi.org/10.1093/rof/rfs043>
  21. Kurt, Y., Sinkovics, N., Sinkovics, R. R., Yamin, M., Ioanid, A., Deselnicu, D. C., Militaru, G., Eniola, A. A., Olorunleke, G. K., Akintimehin, O. O., Ojeka, J. D., Oyetunji, B., Hadi Putra, P. O., Santoso, H. B., Part, R. C., Tao, E. W. T. N. K. K. M. S. S. L. E. S. K. C. S. S. C., M.P. S., Shalij P.R., A., R., ... Fuller, S. (2020). Working Capital Requirements of Manufacturing SMEs : Evidence from Emerging Economy. *Business Strategy Series*, 28(4), 1-8. <http://www.ncbi.nlm.nih.gov/pubmed/32368570><http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC7197250><https://doi.org/10.1007/s41549-020-00045-z>[https://www.foeeurope.org/sites/default/files/press\\_releases/foee\\_5\\_environmental\\_impacts\\_gly](https://www.foeeurope.org/sites/default/files/press_releases/foee_5_environmental_impacts_gly)
  22. Mamilla, R. (2019). A study on sustainable growth rate for firm survival. *Strategic Change*, 28(4), 273-277. <https://doi.org/10.1002/jsc.2269>
  23. Marchica, M. T., & Mura, R. (2010). Financial Flexibility, Investment Ability, and Firm Value: Evidence from Firms with Spare Debt Capacity. *Financial Management*, 39(4), 1339-1365. <https://doi.org/10.1111/j.1755-053X.2010.01115.x>
  24. Meah, M. R., Sen, K. K., & Sahabuddin, M. (2021). Do Working Capital Decision 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>
  25. 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>
  26. Nwude, E. C., & Nwude, C. A. (2021). Board Structure and Corporate Social Responsibility: Evidence From Developing Economy. *Sage Open*, 11(1). <https://doi.org/10.1177/2158244020988543>
  27. Nyeadi, J. D., Sare, Y. A., & Aawaar, G. (2018). Determinants of working capital requirement 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>
  28. Osunde, C. (2017). Family Businesses and Its Impact on the Economy. *Journal of Business & Financial Affairs*, 06(01), 10-12. <https://doi.org/10.4172/2167-0234.1000251>
  29. Pestonji, C., & Wichitsathian, S. (2019). The impacts of working capital policy on firms' performances: An empirical study on thai listed companies in production sector. *International Symposia in Economic Theory and Econometrics*, 26, 40-51. <https://doi.org/10.1108/S1571-038620190000026003>
  30. Raby, S., Hart, M., & Harney, B. (2022). In search of the next growth episode: How firms catalyse and sustain periods of high growth. *International Small Business Journal: Researching Entrepreneurship*, 40(6), 671-683. <https://doi.org/10.1177/02662426221108631>
  31. 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>
  32. 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>
  33. Sah, N. B., Banerjee, A., Malm, J., & Rahman, A. (2022). A good name is better than riches: Family firms and working capital management. *Journal of Behavioral and Experimental Finance*, 33, 100599. <https://doi.org/10.1016/j.jbef.2021.100599>
  34. Setianto, R. H., & Kusumaputra, A. (2019). Corporate Financial Flexibility, Investment Activities, And Cash Holding: Evidence From Indonesia. *Indonesian Capital Market Review*, 9(2), 75-85. <https://doi.org/10.21002/icmr.v9i2.7470>
  35. Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40-49. <https://doi.org/10.1016/j.lrp.2017.06.007>
  36. Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533. [https://doi.org/10.1002/\(SICI\)1097-](https://doi.org/10.1002/(SICI)1097-)

- 0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z
37. Tjandra, C. K. (2022). The determinants of working capital management in Indonesia and the Philippines. *Jurnal Siasat Bisnis*, 26(1), 110-121. <https://doi.org/10.20885/jsb.vol26.iss1.art8>
  38. Utami, D., . S., Muthia, F., & Husni Thamrin, K. M. (2018). Sustainable Growth: Grow and Broke Empirical Study on Manufacturing Sector Companies Listed on the Indonesia Stock Exchange. *KnE Social Sciences*, 3(10), 820-834. <https://doi.org/10.18502/kss.v3i10.3427>
  39. Yi, J. (2020). Financial flexibility, dynamic capabilities, and the performance of manufacturing enterprises. *Journal of Research in Emerging Markets*, 2(2), 19-33. <https://doi.org/10.30585/jrems.v2i2.465>
  40. Yılmaz, O., Karsu, S., Balı, S., Kılıç, F., Mert Mahan, K., Bayar, M., Arslan, S., Altan-Atalay, A., Aycan, Z., Erdem, A. T., Mert, G., Akca, Y., Hıdıroğlu, D., Tepe Küçüköğlü, M., Akca, M., Yikilmaz, I., Özbakır Umut, M., Sağtaş, S., & Gülen, T. (2021). *Family Businesses : Business Models and Strategies*. Retrieved from [https://www.researchgate.net/publication/348930221\\_FAMILY\\_BUSINESSES\\_Business\\_Models\\_and\\_Strategies](https://www.researchgate.net/publication/348930221_FAMILY_BUSINESSES_Business_Models_and_Strategies)