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The Effect of Profitability, Liquidity, Firm Size, Net Working Capital, Leverage, and Growth Opportunity on Cash Holding: Empirical Study From Property and Real Estate Companies Listed in Indonesian Syariah Stock Index (ISSI) for The Period 2019-2023

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ABSTRACT

Cash is the company's most liquid asset and is crucial for financing its operational activities. Therefore, effective cash management is essential to ensure business continuity. This study aims to provide empirical evidence on the influence of profitability, liquidity, firm size, net working capital, leverage, and growth opportunities on cash holdings in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) for the period of 2019–2023. Using a purposive sampling method, the study selected 23 samples from 82 property and real estate companies registered with the ISSI during the period. The data were collected and processed using Microsoft Excel 2019 and EViews 12. The findings indicate that profitability, liquidity, firm size, net working capital, and growth opportunities positively and significantly affect cash holdings, while leverage has no effect. This research makes a unique contribution by focusing on property and real estate companies within Indonesia's Islamic capital market, an area rarely studied in prior research. Additionally, it enriches the literature on factors influencing cash holdings by considering companies that operate based on Sharia principles. The results are expected to provide valuable insights for company management in optimizing cash management and serve as a reference for investors making decisions regarding sharia-compliant companies.

Keywords: Cash Holding, Profitability, Liquidity, Firm Size, Net Working Capital, Leverage, Growth Opportunity

JEL Code: G30, G31, G32, L85, Z12.

I. Introduction

Indonesia is pushing various policies to achieve the "Golden Indonesia 2045 vision." The concept of the 2045 Golden Generation emerged in anticipation of Indonesia's 100th anniversary in 2045. Indonesia's Vision 2045 aims to enhance community welfare, improve human quality, and develop an economy that positions the country among the world's top five economic powers (Anam, 2022). High and inclusive economic growth is expected to increase the middle-income class to approximately 70% of Indonesia's population by 2045. President-elect Prabowo Subianto is committed to advancing Indonesia into a fully developed country by that



year. He emphasizes the importance of diversification, which has already been implemented across economic sectors, particularly by supporting the most promising industries, such as innovation and high-tech.

Technology and industry development are advancing rapidly, resulting in more intense competition in the business world. Therefore, companies must be able to produce effectively and efficiently in order to remain competitive, both nationally and internationally. The primary goal of all companies is to generate profits and stimulate economic growth, thereby enhancing the company's value and benefiting its shareholders (Chandra A.F., 2021). Property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) are part of the property, real estate, and construction sectors that operate by Sharia principles. The property industry has a multiplier effect on various supporting industries, and it plays a key role in promoting the development of the financial sector while also absorbing a significant amount of labor. Companies listed on the ISSI have distinct financial characteristics compared to conventional companies, particularly in funding and financial policies that must adhere to Sharia principles, such as restrictions on interest-based debt (riba). This can influence their cash management strategies and investment policies.

The demand for properties, particularly those based on innovative and green cities, is growing in Indonesia. A recent example of this concept is the Nusantara Capital City (IKN) project, designed to become a green and sustainable city. Property companies listed on the ISSI have the potential to play a key role in supporting this vision of sustainable development, as Sharia principles also emphasize sustainability and social responsibility. Property companies must optimize their financial strategies to remain competitive in the market and attract investors. Effective cash management is crucial to maintaining an optimal cash balance, ensuring the company can meet its operational needs and obligations without compromising investment opportunities (Hidayat, M. J., Hadi, A. F., & Anggraeni, 2020).

Excess cash can lead to losses due to unproductive funds, while a lack of cash can hinder operations, reduce liquidity, and damage a company's reputation. The optimal cash level is the amount of cash sufficient for current and future needs, known as cash holding. Cash holding refers to a company's cash or cash equivalents to finance its operations, meet liabilities, invest in physical assets, or distribute to investors. It is typically measured by dividing cash by the company's total assets. Cash holding is crucial for daily operations, fulfilling financial obligations, and addressing uncertainty or investment opportunities in the future (Fauziyah, 2020). Another phenomenon related to cash holding is that the average cash holding level in property and real estate companies listed on the ISSI is still relatively low. The low average cash holding observed in property and real estate companies from 2019 to 2023 can be attributed to several factors, including the impact of the COVID-19 pandemic, which reduced demand and worsened liquidity, as well as the companies' need to allocate cash to large, long-term investment projects (Abdi, 2021). The average cash holding can be seen in Table 1 below:

Table 1. Cash Holding of Property and Real Estate Companies Listed on ISSI in 2019-2023

No	Code Company	Company	CASH HOLDING				
			2019	2020	2021	2022	2023
1	APLN	PT. Agung Podomoro Land Tbk	0,029	0,028	0,036	0,038	0,027
2	ASPI	PT Andalan Sakti Primaindo Tbk	0,044	0,144	0,273	0,06	0,029
3	BSDE	PT. Bumi Serpong Damai Tbk	0,012	0,020	0,026	0,015	0,014
4	CITY	PT. Natura City Developments Tbk.	0,035	0,030	0,034	0,034	0,035
5	CTRA	PT.Ciputra Development Tbk.	0,017	0,013	0,017	0,021	0,024
6	DILD	PT. Intiland Development Tbk.	0,061	0,09	0,107	0,071	0,065
7	DUTI	PT. Duta Pertiwi Tbk.	0,020	0,018	0,022	0,024	0,019

No	Code Company	Company	CASH HOLDING				
			2019	2020	2021	2022	2023
8	GPRA	PT. Perdana Gapuraprima Tbk.	0,024	0,021	0,036	0,036	0,069
9	JRPT	PT. Jaya Real Property Tbk.	0,032	0,048	0,046	0,050	0,025
10	KIJA	PT. Kawasan Industri Jababeka Tbk.	0,082	0,097	0,09	0,10	0,085

Source: Data processed from ISSI (2024)

Table 1 shows that the cash holdings of several property and real estate companies listed on the ISSI from 2019 to 2023 exhibit significant variations, showing fluctuations up and down each year. These fluctuations reflect differences in financial strategies and cash management practices among companies. This raises important questions about the factors influencing the level of cash holdings, especially considering the changing market dynamics. Key variables such as profitability, liquidity, firm size, net working capital, leverage, and growth opportunities are crucial for navigating current financial challenges, including economic uncertainty, inflation, and fluctuations in interest rates. According to the literature, these factors are indicators that can significantly impact a company's cash holding levels. Profitability ensures cash stability without reliance on external funding, while liquidity enables companies to meet short-term obligations amidst volatile market conditions. Firm size affects access to funding and cash management efficiency, while networking capital reflects a company's ability to finance operations without depending on debt. Leverage is a critical concern, as rising interest rates increase the financial burden on companies with high debt. At the same time, growth opportunities require an optimal cash holding strategy to support company expansion without taking on excessive financial risk. By understanding these factors, companies can manage their cash more effectively and better navigate economic challenges. The results of this study are expected to provide valuable insights for improving cash management in the Islamic property sector.

A study by Verent Permata Sari & Rini Tri Hastuti (2021) titled *The Influence of Net Working Capital, Leverage, Growth Opportunity, and Profitability on Cash Holding* examined 125 manufacturing companies listed on the Indonesia Stock Exchange from 2016 to 2018. The data processing technique used in the study involved Eviews 10 software. The results indicate that all independent variables have a significant impact on cash holdings. Partial testing shows that net working capital, leverage, and profitability significantly influence cash holdings, while growth opportunities do not significantly impact cash holdings (Rini Tri Hastuti, Verent Permata Sari, 2020). The gap in this study lies in the lack of comprehensive research on the combined influence of variables such as profitability, liquidity, company size, net working capital, leverage, and growth opportunities on cash holdings in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI). Previous studies have generally focused on only some of these variables, or the general property sector, without considering the context of companies operating within the Sharia framework. Additionally, past research was typically conducted in global markets or non-Sharia sectors, with mixed results regarding the relationship between these variables and cash holdings. Differences in the research subjects, periods, and data processing techniques further highlight the need for additional research to fill this gap for 2019-2023.

II. Literature Review and Hypothesis Development

2.1. Pecking Order Theory

The Pecking Order Theory, developed by Myers and Majluf (1984), explains that companies follow a hierarchy of preferences when selecting funding sources. According to this theory, companies prefer to use internal funding from retained earnings first, as it incurs no issuance costs or risks related to asymmetric information. If internal funds are insufficient, the company will seek external funding through debt, since the cost of debt is lower than issuing new shares. As a last resort, the company will issue new shares, which can send investors a negative signal and result in ownership dilution. In the context of cash holdings, the Pecking

Order Theory can explain why companies tend to accumulate cash. Companies with high profitability will likely hold larger amounts of cash because they rely on retained earnings for funding. In contrast, companies with high leverage may hold less cash, relying more on debt to meet their funding needs. Pecking Order Theory is a financial theory that explains how companies make decisions regarding their capital structure, specifically concerning using debt and equity to finance their operations. About cash holdings, this theory suggests that companies tend to maintain adequate cash reserves to reduce their reliance on more expensive external funding, which is also riskier due to asymmetric information. Additionally, having sufficient cash reserves allows companies to maintain financial flexibility, especially in the face of uncertainty or sudden investment opportunities (Rustam & Rasyid, 2022).

2.2. Cash Holding

Cash holding refers to the cash owned by a company or available for investment in physical assets and funds allocated for distribution to investors. The ratio compares the company's cash and cash equivalents to its total assets. Serving as a source of financing, cash holding helps reduce transaction costs and enhances financial flexibility (S., 2020). The formula used to calculate cash holding is:

$$\text{Cash Holding} = \frac{\text{Cash and Cash Equivalents}}{\text{Total Assets}}$$

2.3. Profitability

The profitability ratio describes a company's profit from its investment activities and asset management (Faizah & Nurmalia, 2020). Profitability results from the relationship between costs and income (Yusuf et al., 2022). This study focuses on the profitability ratio, using Return on Assets (ROA) as the measure of influence. The formula for calculating ROA is as follows:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

According to the Pecking Order Theory, profitability positively influences cash holding. This theory suggests that companies that generate significant profits will use these profits to pay dividends, settle debts, and accumulate cash. A study on the influence of profitability on cash holding, conducted by Matthew Hadryan (2024) and titled *The Influence of Leverage, Profitability, and Firm Size on Cash Holding*, used manufacturing companies listed on the Indonesia Stock Exchange as the research subject. The study selected 64 companies as the sample and used the Eviews (Economic Views) program, version 12, for data processing. The results of the tests conducted by the researcher revealed that leverage had a negative and significant effect on cash holding, profitability had a positive and significant effect on cash holding, and firm size had a positive but insignificant effect on cash holding. Based on these findings, the following alternative hypotheses can be formulated:

H1: Profitability has a positive and significant effect on cash holding.

2.4. Liquidity

This ratio measures a company's ability to pay its short-term debts using its current assets (Meita Sekar Sari et al., 2022). A higher current ratio indicates greater liquidity, but excessive asset holdings can lead to inefficiencies, as assets that should generate profits remain underutilized, ultimately reducing profitability. Various liquidity ratios exist, including the current ratio, quick ratio, cash ratio, net working capital, and inventory on net working capital (M. S. Sari et al., 2023). This study focuses on the Current Ratio, which assesses a company's capacity to settle all short-term liabilities using its current assets (Pratiwi et al., 2024). The formula to calculate the Current Ratio is as follows:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \times 100\%$$

According to the pecking order theory, companies tend to increase their cash reserves when liquidity is high to manage risk, enhance operational efficiency, and maintain control over their resources. Research on the impact of liquidity on cash holding, conducted by Sabila (2023) in a study titled *The Effect of Liquidity, Leverage, Firm Size, Tax Avoidance, and Net Working Capital on Cash Holding*, examined 37 Consumer Goods Non-Cyclical companies listed on the Indonesia Stock Exchange from 2018 to 2021. The findings indicate that liquidity significantly affects cash holding, while leverage and firm size do not influence cash holding. Conversely, tax avoidance significantly affects cash holding, and net working capital also exhibits a significant adverse effect. Based on these findings, the following alternative hypotheses can be proposed:

H2: Liquidity has a positive and significant effect on cash holding.

2.5. Firm Size

Company size can be classified in various ways, including total assets, sales, log size, stock market value, market capitalization, and other highly correlated factors. The decision-making process regarding cash holding levels differs between large and small companies (Rustam & Rasyid, 2022). The formula used to calculate Firm Size is as follows:

$$\text{Size} = \ln(\text{Total Assets})$$

According to the pecking order theory, company size positively influences cash holding. Larger companies tend to hold more cash to meet their greater short-term needs and to fund investments. Research on the effect of firm size on cash holding was conducted by Hesty Juni Tambuati Subing (2023) in a study titled *Analysis of the Factors Influencing Cash Holding in Corporations in Pharmaceutical Industry Sector Companies Listed on the IDX in 2016-2020*. The study found that net working capital has no effect on cash holding, leverage has a significant relationship with cash holding, cash flow positively affects cash holding, and firm size is also proven to influence cash holding positively. Based on these findings, the following alternative hypotheses can be proposed:

H3: Firm size has a positive and significant effect on cash holding.

2.6. Net Working Capital

Net working capital (NWC) is the difference between a company's assets and liabilities. This ratio is used to assess cash planning and evaluate the effectiveness of a company's cash management (Ekadjaja, 2023). The formula used to calculate Net Working Capital is as follows:

Based on the pecking order theory, which is widely applied in corporate finance, companies must balance costs and benefits when determining the amount of cash to retain.

$$\text{Net Working Capital} = \frac{\text{Current Asset} - \text{Current Liabilities}}{\text{Total Assets}} \times 100\%$$

Theory, companies maintain larger cash reserves to reduce the possibility of financial distress and meet urgent investment needs without relying on expensive external financing. Research on the influence of Net Working Capital on cash holding was conducted by Adi Fawwazin (2022) in a study titled *The Effect of Growth Opportunity, Net Working Capital, Cash Conversion Cycle, and Tax Avoidance on Cash Holding Companies (Case Study on LQ 45 Index Companies 2018-2020)*. The study found that, simultaneously, the Cash Conversion Cycle, Growth Opportunity, Net Working Capital, and Tax Avoidance significantly impact cash holding in LQ 45 Index companies listed on the Indonesia Stock Exchange. Based on these findings, the following alternative hypothesis can be proposed:

H4: Net working capital positively and significantly affects cash holding.

2.7. Leverage

Leverage refers to a company's use of debt to finance or acquire assets. Debt is one of the alternatives companies use for financing. Leverage is measured using two main ratios: the Debt to Total Asset Ratio (DTA) and the Debt to Equity Ratio (DER). This study focuses on the Debt-to-Total-Asset Ratio (DTA), which is calculated by dividing total debt by the company's assets. The formula used to calculate DAR is as follows:

$$\text{Debt to Total Asset (DTA)} = \frac{\text{Total Liabilities}}{\text{Total Assets}} \times 100\%$$

The pecking order theory suggests that companies with high debt levels retain more cash to meet financial obligations. High leverage encourages companies to maintain ample cash reserves to avoid the high costs of acquiring new debt or issuing shares. Since high leverage increases reliance on external financing, companies prefer to hold more cash to ensure financial flexibility. Research on the effect of leverage on cash holding was conducted by Rini Tri Hastuti and Verent Permata Sari (2020) in a study titled The Influence of Net Working Capital, Leverage, Growth Opportunity, and Profitability on Cash Holding. The findings indicate that all independent variables significantly influence cash holding. Partial testing shows that net working capital, leverage, and profitability each significantly impact cash holding. Based on these findings, the following alternative hypothesis can be proposed:

H5: Leverage has a positive and significant effect on cash holding.

2.8. Growth Opportunity

Growth opportunity refers to the combination of potential future investment opportunities and the tangible assets owned by a company. In general, companies aim to maintain sufficient cash reserves to finance profitable investment projects in the future. Growth Opportunity is a ratio that reflects changes in total assets, serving as a basis for companies in making investment decisions and policies (Fauziyah, 2020). The formula used to calculate Growth Opportunity is as follows:

$$\text{Growth Opportunity} = \frac{\text{Total Asset } T - \text{Total Asset } (T - 1)}{\text{Total Asset } (T - 1)}$$

According to the pecking order theory, companies must balance costs and benefits when making financial decisions, including cash holding. Companies with significant growth opportunities, such as expansion plans and new investments, tend to retain more cash to fund these projects. Research on the influence of Growth Opportunity on cash holding was conducted by Adi Fawwazin (2022) in a study titled The Effect of Growth Opportunity, Net Working Capital, Cash Conversion Cycle, and Tax Avoidance on Cash Holding Companies (Case Study on LQ 45 Index Companies 2018-2020). The study found that, simultaneously, the Cash Conversion Cycle, Growth Opportunity, Net Working Capital, and Tax Avoidance significantly impact cash holding in LQ 45 Index companies listed on the Indonesia Stock Exchange. Based on these findings, the following alternative hypothesis can be proposed:

H6: Growth Opportunity has a positive and significant effect on cash holding.

III. Research Method

The research method used in this study is quantitative, which involves using numbers and statistical analysis to collect and interpret measurable data. This study employs a descriptive research design, which aims to systematically, factually, and accurately describe a specific population's characteristics or provide a detailed analysis of a particular phenomenon (Muri, 2023).

3.1. Population and Sample

The research method used in this study is quantitative, which involves using numbers and statistical analysis to collect and interpret measurable data. This study employs a descriptive research design, which aims to systematically, factually, and accurately describe a specific population's characteristics or provide a detailed analysis of a particular phenomenon (Muri, 2023). The sample represents a subset of the population with similar characteristics and is used to estimate the larger group. A sample must sufficiently represent the population accurately (Gustika & Wulan, 2024). This study employs a purposive sampling method, which involves selecting samples based on specific criteria. As a result, 23 samples were obtained. The sampling criteria used in this study are as follows:

- a. 42 property and real estate companies listed consecutively on the Indonesian Sharia Stock Index (ISSI) from 2019 to 2023 meet the research criteria.
- b. Property and real estate companies that published financial statements consecutively on the Indonesian Sharia Stock Index (ISSI) for the 2019–2023. However, nine property and real estate companies on the ISSI did not publish their financial statements consecutively during this period.
- c. Property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) that did not experience consecutive losses during the 2019–2023 period. Meanwhile, 10 property and real estate companies on the ISSI suffered consecutive losses during this period.

3.2. Data Source

This study utilizes secondary data, which refers to data already collected and made available by other sources. According to Sanusi (2011), secondary data comprises information from existing sources. The data analyzed in this study comes from the annual financial statements of property and real estate companies listed

on the Indonesian Sharia Stock Index (ISSI) for the 2019–2023 period, sourced from the official website www.idx.co.id.

3.3. Data Analysis Techniques

This study conducted data processing using Microsoft Excel 2019 and the EViews 12 software.

3.3.1. Descriptive Analysis

Descriptive statistics is a data analysis technique used to describe the condition of research variables. According to Sugiyono (2020), descriptive statistics analyze data by presenting it as it is, without generalizing or drawing broader conclusions. The purpose of descriptive statistical testing is to provide an overview of the variables being studied. It presents key statistical measures such as each variable's meaning, standard deviation, maximum, and minimum values. The meaning is calculated by summing up all data values and dividing them by the total number of observations. The standard deviation is derived from the square root of the sum of squared differences between each data point and the mean, divided by the number of observations. It measures the extent to which data values deviate from the mean. A smaller data distribution indicates homogeneity, whereas a larger distribution suggests greater variability (Febriani, 2022).

3.3.2. Classical Assumption Test

a. Normality Test

The normality test aims to determine whether the residuals in the regression model follow a normal distribution. This test assesses data distribution (Nurmalia & Thoyib, 2022). Several methods can be used for normality testing, including the Lilliefors test, Kolmogorov-Smirnov test, Shapiro-Wilk test, Shapiro-Francia test, Skewness-Kurtosis test, and Jarque-Bera test, among others (Dirwan, 2021).

b. Multicollinearity Test

Multicollinearity occurs when the independent variables in a regression model have a perfect or near-perfect linear relationship, indicated by a high correlation coefficient (close to or equal to 1). A strong correlation between independent variables suggests the presence of multicollinearity. A perfect correlation among the independent variables can lead to unassessable regression coefficients and infinitely large standard error values for each regression estimate (Amelia et al., 2024).

c. Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is an inequality in the variance of residuals across different observations in a regression model. If the variance of residuals remains constant across observations, it is referred to as homoscedasticity, whereas if it varies, it is called heteroscedasticity. A good regression model exhibits homoscedasticity. Various tests can be used to detect heteroscedasticity, including the Breusch-Pagan-Godfrey test, Harvey test, Gleyser test, ARCH test, and White test.

3.3.3. Panel Data Estimation Model Selection

Panel data regression estimation utilizes three main approaches: the Common Effect Model, the Fixed Effect Model, and the Random Effect Model. The steps for selecting the appropriate panel data model are as follows:

- a. Determination of Estimation Model between Common Effect Model (CEM) and Fixed Effect Model (FEM) with Chow Test

The Chow test is a test that determines the best model for the fixed effect and common effect. The hypotheses in the Chow Test are:

H0: Common Effect Model (Prob > 0.05)

H1: Fixed Effect Model (Prob < 0.05)

If the results state that it accepts the null hypothesis, then the best model to use is the Common Effect Model. However, if the results reject the null hypothesis, then the best model used is the Fixed Effect Model, and the test will continue to the Hausman Test.

- b. Determination of the Estimation Model between the Fixed Effect Model (FEM) and the Random Effect Model (REM) with the Hausman Test.

The Hausman test determines the best regression model, a fixed effect model or a random effect model. The hypotheses in Hausman's test are:

H0: Random Effect Model (Prob > 0.05)

H1: Fixed Effect Model (Prob < 0.05)

If the results of the Hausman test state that it accepts the null hypothesis, then the best model to use is the Random Effect model. However, if the results state that it rejects the null hypothesis, the Fixed Effect model is the best model.

- c. Determination of the Estimation Model between the Common Effect Model (CEM) and the Random Effect Model (REM) with Lagrange Multiplier (LM) Test

This test is to determine the Common Effect or Random Effect model. The hypothesis in the Lagrange Multiplier Test is:

H0: Common Effect Model (Prob > 0.05)

H1: Random Effect Model (Prob < 0.05)

If the LM results state that it accepts the null hypothesis, then the best model to use is the Common Effect model. If the results state that they reject the null hypothesis, then the best model used is the Random Effect model. (Basuki, 2021).

3.4. Panel Data Estimation Model Selection

3.4.1. Partial Test (t-Test)

The t-test is used to find out the truth of a statement or hypothesis proposed by the researcher. (Repika et al., 2024). A t-test was conducted to determine the effect of the independent variable on the dependent variable. The testing criteria for the t-test according to Priyatno (2014) are: If the Significance > 0.05, then Ho is accepted; if the Significance < 0.05, then Ho is rejected. (Suhendar et al., 2023)

3.4.2. Simultaneous Test (F Test)

The Joint Test, or F-test, determines whether the independent variables collectively influence the dependent variable.

3.4.3. Coefficient of Determination (R²)

Using this determination coefficient is to find out the percentage of changes in the dependent variable caused by the independent variable getting higher. This is because the R² is getting bigger. Likewise, if R² is negligible, the percentage of change in the dependent variable caused by the independent variable is lower. (Sugiyono, 2020).

3.5. Panel Data Regression Analysis

Regression analysis using panel data is called a panel data regression model. Panel data consists of observations on multiple individuals (cross-sectional units) over several consecutive periods. This type of analysis combines time-series and cross-sectional data (Hidayat, M. J., Hadi, A. F., & Anggraeni, 2020). In the panel data model, the equation using cross-sectional data is written as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \epsilon_{it}$$

IV. Results and Discussion

4.1. Statistical Result

4.1.1 Descriptive Analysis

Table 2. Results of Descriptive Analysis

	CH	ROA	CR	FIRM_SIZE	NWC	DAR	GO
Mean	8.017334	3.197739	172.3087	26.99448	15.73270	37.52627	3.411043
Median	6.904636	2.750000	158.4200	28.19665	12.12000	35.09678	3.700000
Maximum	24.38315	13.98000	515.5900	32.52096	69.40000	83.31032	20.27000
Minimum	0.205935	-6.520000	62.08000	15.59595	-18.28000	7.749878	-29.73000
Std. Dev.	6.346626	3.577812	70.24544	3.766874	18.52198	18.97713	7.231799
Skewness	0.893311	0.553866	2.708086	-1.142777	0.816217	0.326443	-0.554982
Kurtosis	3.048710	4.042742	12.63766	4.154847	3.278026	2.387686	6.060415
Jarque-Bera	15.30646	11.08974	585.6346	31.42099	13.13943	3.839030	50.78284
Probability	0.000475	0.003907	0.000000	0.000000	0.001402	0.146678	0.000000
Sum	921.9934	367.7400	19815.50	3104.365	1809.260	4315.521	392.2700
Sum Sq. Dev.	4591.882	1459.285	562524.2	1617.585	39109.28	41055.00	5962.076
Observations	115	115	115	115	115	115	115

Source: Data Processed Eviews 12 (2025)

The results of the descriptive analysis indicate that the total number of observations (N) is 115. If the mean exceeds the standard deviation, it suggests a small data distribution, indicating relatively homogeneous data. The homogeneity variables include cash holding, liquidity, firm size, and leverage. Conversely, if the mean is less than the standard deviation, it indicates a larger data spread, reflecting relatively heterogeneous data. The variables classified as heterogeneous include profitability, net working capital, and growth opportunity.

4.1.2 Normality Test

The normality test in this study is conducted using the Skewness-Kurtosis test. Normality is determined based on the significance value: if the normality value is greater than 0.05, the data is considered to be normally distributed.

Table 3. Normality Test Results

	Statistic	Prob.
Skewness	0.547819	0.291908
Skewness 3/5	0.541537	0.294069
Kurtosis	1.224933	0.110300
Normality	1.524080	0.466713

Source: Data Processed Eviews 12 (2025)

Based on the normality test results using the Skewness-Kurtosis method in Eviews12, the normality value is 0.466713, which is greater than the significance level of 0.05. Therefore, it can be concluded that the residual data is usually distributed.

4.1.3 Multicollinearity

Table 4. Multicollinearity Test Results

	ROA	CR	FIRM_SIZE	NWC	DAR	GO
ROA	1.000000	0.360432	0.021393	0.258281	-0.211730	0.373325
CR	0.360432	1.000000	-0.102704	0.228639	-0.364544	0.187980
FIRM_SIZE	0.021393	-0.102704	1.000000	0.065789	0.299650	0.152153
NWC	0.258281	0.228639	0.065789	1.000000	0.048148	0.152399
DAR	-0.211730	-0.364544	0.299650	0.048148	1.000000	-0.079776
GO	0.373325	0.187980	0.152153	0.152399	-0.079776	1.000000

Source: Data Processed Eviews 12 (2025)

Based on the results of the multicollinearity test, the correlation coefficients between the independent variables Profitability, Liquidity, Firm Size, Net Working Capital, Leverage, and Growth Opportunity are all less than 0.85. This indicates no strong linear relationship between the independent variables, meaning multicollinearity is absent.

4.1.4 Heteroscedasticity Test

The heteroscedasticity test in this study was conducted using the Breusch-Pagan-Godfrey method. The test criteria are as follows: if the Probability Obs*R-squared value is greater than 0.05, heteroscedasticity is absent. Conversely, if the Probability Obs*R-squared value is less than 0.05, it suggests the presence of heteroscedasticity.

Table 5. Heteroscedasticity Test Results

Heteroskedasticity Test: Breusch-Pagan-Godfrey Null hypothesis: Homoskedasticity

F-statistic	1.782668	Prob. F(6,108)	0.1093
Obs*R-squared	10.36295	Prob. Chi-Square(6)	0.1102
Scaled explained SS	15.17021	Prob. Chi-Square(6)	0.0190

Source: Data Processed Eviews 12 (2025)

Based on the results of the heteroscedasticity test using the Breusch-Pagan-Godfrey method in Eviews12, the Probability Obs*R-squared value is 0.1102, greater than 0.05. This indicates that there are no symptoms of heteroscedasticity in the regression model.

4.1.5 Chow Test

Table 6. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	9.325805	(22,86)	0.0000
Cross-section Chi-square	140.248493	22	0.0000

Source: Data Processed Eviews 12 (2025)

The Chi-Square statistical value obtained from the calculation using Eviews12 is 140.248493, with a probability of 0.0000 (less than 5%). Statistically, this leads to the rejection of H0 and the acceptance of H1, indicating that the appropriate model for estimation is the Fixed Effect Model.

4.1.6 Hausman Test

Table 7. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob
Cross-section random	29.263921	6	0.0001

The Chi-Square statistical value obtained from the calculation using Eviews12 is 29.263921, with a probability of 0.0001 (less than 5%). Statistically, this results in the rejection of H0 and the acceptance of H1, indicating that the appropriate estimation model is the Fixed Effect Model.

4.1.7 Partial Test (t-Test)

Table 8. Test Results of Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-63.57808	32.35209	-1.965192	0.0526
ROA	0.222787	0.108993	2.044051	0.0440
CR	0.013784	0.006646	2.073968	0.0411
FIRM_SIZE	2.458959	1.220711	2.014366	0.0471
NWC	0.090401	0.045175	2.001131	0.0485
DAR	0.007642	0.059234	0.129014	0.8976
GO	0.123280	0.041607	2.962945	0.0039

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	2.114409	R-squared	0.888034
Mean dependent var	8.017334	Adjusted R-squared	0.851580
S.D. dependent var	6.346626	S.E. of regression	2.445055
Akaike info criterion	4.839775	Sum squared resid	514.1333
Schwarz criterion	5.531976	Log-likelihood	-249.2871
Hannan-Quinn criter.	5.120736	F-statistic	24.36044
Durbin-Watson stat	2.343662	Prob(F-statistic)	0.000000

Source: Data Processed Eviews 12 (2025)

Based on the results of the Fixed Effect Model using Eviews12, the ROA variable (X1) has a coefficient value of 0.222787, a t-Statistic value of 2.044051, and a probability value of 0.0440 (<5%), indicating that ROA (X1) has a positive and significant effect on Cash Holding (Y). The Current Ratio variable (X2) has a coefficient value of 0.013784, a t-statistic value of 2.073968, and a probability value of 0.0411 (<5%), showing that the Current Ratio (X2) also has a positive and significant effect on Cash Holding (Y). Similarly, the Firm Size variable (X3) has a coefficient value of 2.458959, a t-statistic value of 2.014366, and a probability value of 0.0471 (<5%), confirming that Firm Size (X3) has a positive and significant effect on Cash Holding (Y).

The Net Working Capital (X4) variable obtained a coefficient value of 0.090401, a t-statistic value of 2.001131, and a prob value. By 0.0485 (<5%), the Net Working Capital Variable (X4) has a positive and significant effect on Cash Holding (Y). The t-test is used to find out the truth of a statement or hypothesis proposed by the researcher (Repika et al., 2024). A t-test was conducted to determine the effect of the independent variable on the dependent variable. The testing criteria for the t-test, according to Priyatno (2014), are: If the Significance > 0.05, then Ho is accepted; if the Significance < 0.05, then Ho is rejected (Suhendar et al., 2023). The Leverage variable (X5) obtained a coefficient value of 0.07642, a t-statistic value of 0.129014, and a prob value. By 0.8976 (<5%), the Leverage Variable (X5) has no positive and insignificant effect on Cash Holding (Y). The Growth Opportunity variable (X6) obtained a coefficient value of 0.123280, a t-

statistic value of 2.962945, and a prob value. At 0.0039 (<5%), the Growth Opportunity Variable (X6) has a positive and significant effect on Cash Holding (Y).

4.1.8 Simultaneous Test (Test F)

Prob. F statistic of 0.000000 (<5%), so together/simultaneously the variables ROA (X1), CR (X2), Firm Size (X3), Net Working Capital (X4), Leverage (X5) and Growth Opportunity (X6) have a significant effect on the Cash Holding (Y) variable.

4.1.9 Coefficient of Determination (R²)

The R-squared value of 0.888034 (88.80%) means that the variables ROA (X1), CR (X2), Firm Size (X3), Net Working Capital (X4), Leverage (X5) and Growth Opportunity (X6) affect the Cash Holding (Y) variable by 88.80%, the rest are influenced by other variables that are not included in the model.

4.1.10 Panel Data Regression Analysis

Based on the results of the fixed effect model using Eviews12, a panel data regression model was obtained in this study, namely:

$$Y_{it} = -63.58 + 0.22 * X_{it} + 0.02 * X_{it} + 2.46 * X_{it} + 0.10 * X_{it} + 0.01 * X_{it} + 0.12 * X_{it} + \epsilon_{it}$$

4.2. Discussion

4.2.1. The Effect of Profitability on Cash Holding

Based on Table 8, the Profitability variable has a coefficient value of 0.222787 and a significance value of 0.0440. Since the significance value is less than 0.05 (0.0440 < 0.05), H1 is accepted, indicating that Profitability has a positive and significant effect on cash holding in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) for the 2019-2023 period, these findings suggest that companies with higher profitability tend to hold more cash, as they have more substantial financial capacity and prefer to maintain liquidity to navigate future uncertainties and investment opportunities. Furthermore, this study is supported by previous research conducted by Camelia and Akbar (2024), which states that a higher level of profitability leads to a greater amount of cash available to the company. According to the pecking order hypothesis, which describes the cash funding system, internal financing is prioritized first, then debt, and finally equity. However, the results of this study contrast with the findings of Asteria and Riauwanto (2021), who concluded that profitability does not significantly affect a company's cash holdings. By the Pecking Order Theory, companies with high profitability tend to rely more on retained earnings as their primary funding source than debt or external financing. In this context, companies with significant profits prefer to increase their cash reserves to finance future expansion or operational needs, thereby reducing their dependence on higher-risk debt (Matthew Hadryan, 2024).

The study results indicate that profitability has a positive and significant effect on cash holding in property and real estate companies listed on the Sharia Stock Index (ISSI) for the 2019-2023 period, as evidenced by the characteristics of the research sample. One of the companies analyzed, Metropolitan Land Tbk (MTLA), had a Return on Assets (ROA) of 7.98% and a cash holding value of 11.91% in 2019. In 2020, the company's ROA declined to 4.83%, with a decrease in cash holdings to 8.27%. However, in 2021, the ROA increased to 5.94%, followed by a rise in cash holdings to 10.18%. These findings confirm that as a company's

profitability increases, it tends to hold more cash, and conversely, when profitability declines, cash reserves also decrease.

4.2.2. The Effect of Liquidity on Cash Holding

Based on Table 8, the liquidity variable has a coefficient value of 0.013784 and a significance value of 0.0411. Since the significance value is less than the probability threshold of 0.05 ($0.0411 < 0.05$), H2 is accepted, indicating that liquidity has a positive and significant effect on cash holding in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) for the 2019-2023 period. High liquidity reflects a company's ability to meet its short-term obligations using current assets, suggesting that companies with higher liquidity levels tend to hold more cash reserves to ensure smooth operational activities. This research is supported by previous studies that state that liquidity positively affects cash holding (Putri, 2022). However, the findings of this study contradict the research conducted by Rahman (2021), which found that liquidity has not been proven to have a significant effect on a company's cash holdings. The results of this study are also consistent with the Pecking Order Theory, which suggests that companies consider the balance between the benefits of liquidity and the costs of holding cash. In this context, companies with strong liquidity levels are more likely to retain cash to minimize financial risk while maintaining operational flexibility (Muaja et al., 2023).

The study results indicate that liquidity has a positive and significant effect on cash holding in property and real estate companies listed in the Sharia Stock Index (ISSI) for the 2019-2023 period, as reflected in the characteristics of the research sample. One of the companies included in this study is PT Alam Sutera Realty Tbk (ASRI), which in 2019 had a Current Ratio (CR) of 131.04% and a cash holding value of 5.52%. In 2020, ASRI experienced a decline in its Current Ratio (CR) to 67.41%, with a decrease in cash holdings to 2.94%. However, in 2021, ASRI's Current Ratio (CR) increased to 83.52%, followed by an increase in cash holdings to 4.52%. These findings confirm that liquidity has a positive and significant effect on cash holding, meaning that companies with higher liquidity levels tend to hold more cash, while those with lower liquidity levels hold less.

4.2.3. The Effect of Firm Size on Cash Holding

Based on Table 8, the Firm Size variable has a coefficient value of 2.458959 and a significance value of 0.0471. Since the significance value is less than the probability threshold of 0.05 ($0.0471 < 0.05$), H3 is accepted, indicating that Firm Size has a positive and significant effect on cash holding in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) for the 2019-2023 period. This finding suggests that larger companies hold more cash, as their size allows them to accumulate greater financial resources. This research is consistent with the findings of Alicia et al. (2020), which indicate that larger companies tend to hold more cash because they possess greater assets, allowing them to allocate cash reserves while awaiting more profitable investment opportunities. However, these findings contrast with the research conducted by Aspasia & Arfianto (2021), which states that Firm Size has a negative and insignificant effect on a company's cash holding. According to Pecking Order Theory, companies prioritize internal funding sources, encouraging larger companies to maintain higher cash reserves. This occurs because large companies have greater access to resources and a higher capacity to generate profits. As a result, they find it easier to hold larger cash reserves as part of their liquidity strategy (Hesty Juni Tambuati Subing, 2023). The study results indicate that firm size has a positive and significant effect on cash holding in property and real estate companies listed on the Sharia Stock Index (ISSI), which the characteristics of the research sample can explain. One of the companies analyzed in this study is PT Alam Sutera Realty Tbk (ASRI), where in 2019, the company had a Firm Size value of 23.81% and a cash holding value of 5.52%. In 2020, ASRI experienced a decrease in Firm Size to 23.78%, followed by a decline in cash holdings to 2.94%. However, in 2021, Firm Size increased again to 23.81%, and cash holdings rose to 4.52%. These findings indicate that Firm Size has a positive and significant effect on cash holding, meaning that the larger the Firm Size of a company, the greater the amount of cash it retains, and vice versa.

4.2.4. The Effect of Net Working Capital on Cash Holding

Based on Table 8, the Net Working Capital variable has a coefficient value of 0.090401 and a significance value of 0.0485. Since the significance value is less than the probability threshold of 0.05 ($0.0485 < 0.05$), H4 is accepted, indicating that Net Working Capital has a positive and significant effect on cash holding in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) for the 2019-2023 period. These results suggest that the higher the Net Working Capital, the greater the company's cash holding. This study aligns with the research conducted by M. (2020), which states that Net Working Capital has a positive and significant effect on cash holding. A higher Net Working Capital value allows companies to allocate more funds for their cash needs. However, these findings contradict the research by Aspasia & Arianto (2021), which suggests that Net Working Capital has a negative and insignificant effect on a company's cash holding. This aligns with the Pecking Order Theory, which states that companies with significant working capital tend to hold more cash to maintain financial flexibility and anticipate unexpected operational needs. By maintaining higher cash reserves, companies can better manage liquidity risks and have greater capacity to finance growth and investments without relying excessively on external funding sources.

The study results indicate that net working capital has a positive and significant effect on cash holding in property and real estate companies listed on the Sharia Stock Index (ISSI), which the characteristics of the research sample can explain. One of the companies included in this study is PT Duta Pertiwi Tbk (DUTI), where in 2019, the company had a Net Working Capital value of 36.04% and a cash holding value of 21.98%. In 2020, PT Duta Pertiwi Tbk (DUTI) experienced a decline in Net Working Capital to 30.35%, followed by a decrease in cash holdings to 18.26%. However, in 2021, the company saw an increase in Net Working Capital to 35.92% and a rise in cash holdings to 22.05%. These findings confirm that Net Working Capital positively and significantly affects cash holding, meaning that the higher a company's Net Working Capital, the greater the amount of cash it retains, and vice versa.

4.2.5. The Effect of Leverage Capital on Cash Holding

Based on Table 8, the Leverage variable has a coefficient value of 0.007642 and a significance value of 0.8976. Since the significance value is greater than the probability threshold of 0.05 ($0.8976 > 0.05$), H5 is rejected, indicating that Leverage has no effect on cash holding in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) for the 2019-2023 period. This can be attributed to the characteristics of the property industry, which operates with a long-term business cycle and relies heavily on cash flow from ongoing projects. Companies in this sector often implement cash management strategies that prioritize project funding and liquidity flexibility, meaning that cash holding levels are more influenced by operational needs rather than the level of debt they carry. The results of this study are consistent with research conducted by Ekadjaja (2023), which found that Leverage (DAR) does not affect Cash Holding. However, these findings contradict the study by Fauzie et al. (2020), which states that Leverage has a positive and significant effect on a company's cash holdings. This research does not align with Pecking Order Theory, which suggests that companies with high debt levels tend to retain more cash to anticipate financial liabilities, prioritizing internal funds before seeking external financing. Companies with easy access to funding sources may not need to hold large cash reserves since they can obtain funds whenever necessary. However, some companies still maintain high cash reserves despite having significant debt. In the property industry, cash needs are more influenced by long-term project cycles rather than the level of debt alone. Therefore, the amount of debt a company holds does not always determine its cash reserves.

The study results, which indicate that leverage has no effect on cash holding in property and real estate companies listed in the Sharia Stock Index (ISSI) for the 2019-2023 period, can be explained through the characteristics of the research sample. One of the sample companies, PT Alam Sutera Realty Tbk (ASRI), had a leverage value of 51.76% and a cash holding value of 5.52% in 2019. 2020 the company's leverage increased to 55.78%, while its cash holdings decreased to 2.94%. In 2021, leverage increased to 56.52%, but the cash

holding value rose to 4.52%. These findings suggest that leverage does not influence cash holding, as the leverage and cash holdings fluctuations do not consistently move in the same direction. This inconsistency indicates that changes in leverage are not a determining factor in the company's cash holding decisions.

4.2.6. The Effect of Growth Opportunity Capital on Cash Holding

Based on Table 8, the Growth Opportunity variable obtained a coefficient value of 0.123280 and a significance value of 0.0039. Since the significance value is less than the probability threshold of 0.05 ($0.0039 < 0.05$), H_6 is accepted, indicating that Growth Opportunity has a positive and significant effect on cash holding in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) for the 2019-2023 period. This finding suggests that companies with greater growth potential tend to retain more cash, as they require liquidity to finance future expansion, seize investment opportunities, and support operational needs. This research is supported by Adi Fawwazin (2022), who states that Growth Opportunity positively affects cash holding. Companies with significant growth opportunities, such as expansion plans and new investments, tend to hold more cash as a reserve to finance these projects. Maintaining sufficient cash reserves allows companies to avoid the higher costs associated with external funding when investment opportunities arise. However, the results of this study contradict the findings of M. (2020), which state that Growth Opportunity has not been proven to have a significant effect on cash holding. This aligns with Pecking Order Theory, which states that companies prioritize internal funding, such as cash, to finance their investment projects before debt or issuing new shares. Companies with greater growth opportunities, such as property firms investing in new project developments, require sufficient cash reserves to support these investments (Adlina Ritonga et al., 2019).

The study results indicate that Growth Opportunity has a positive and significant effect on cash holding in property and real estate companies listed on the Sharia Stock Index (ISSI), as reflected in the characteristics of the research sample. One of the companies analyzed, PT Alam Sutera Realty Tbk (ASRI), recorded a Growth Opportunity value of 4.80% in 2019, accompanied by a cash holding value of 5.52%. In 2020, the company experienced a decline in Growth Opportunity to -3.05%, which was followed by a decrease in cash holding to 2.94%. However, in 2021, Growth Opportunity increased to 3.33%, and cash holding rose to 4.52%. These findings reinforce that higher Growth Opportunity levels lead to greater cash holdings, as companies retain more cash to support future investment and expansion opportunities.

V. Conclusion

Profitability, Liquidity, Firm Size, Net Working Capital, and Growth Opportunity positively and significantly influence cash holding in property and real estate companies listed on the Indonesian Sharia Stock Index (ISSI) during the 2019–2023 period. This study is limited to property and real estate companies listed on ISSI for the 2019–2023, making the results not necessarily generalizable to other sectors. Additionally, the study only examines six independent variables, while other factors such as ownership structure, dividend policy, and macroeconomic conditions may also influence cash holding. Based on that, future research can broaden the scope by including various industry sectors and extending the research period to obtain more comprehensive results. Additionally, incorporating other variables such as macroeconomic conditions or corporate governance can provide deeper insights into the factors influencing cash holding.

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