FACTORS EFFECTING HOLDING PERIOD OF CONSTRUCTION MATERIAL COMPANY STOCKS IN INDONESIA

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ABSTRACT

This study aims to examine the influence of bid-ask spread, market value, stock price, and return variance on the holding period. The research employs a quantitative method. The data used is secondary data sourced from the financial reports of construction material companies listed on the Indonesia Stock Exchange (IDX) for the period 2021-2022. Data collection was conducted using a purposive sampling method, resulting in a selected sample of 144. This study was tested using panel data regression analysis techniques. The result shows the p-values for market value, stock price, and return variance are each below the significant level of 0.05, indicating that these variables have a statistically significant impact on the holding period of stocks. Both market value and return variance show a negative relationship with the holding period. Additionally, the F-Statistic value exceeds the critical value from the F-distribution (f-table), suggesting that bid ask spread, market value, stock price, and return variance collectively have a significant influence on the holding period of company stocks.

Keywords: holding period; bid ask spread; market value; stock price; variance return

INTRODUCTION

The stock market functions as a vital mechanism for capital allocation, enabling investors to support business growth while seeking returns. In this ecosystem, understanding the holding period of stocks—how long an investor aims for a stock before selling is critical for investors, financial analysts, and policymakers. The holding period reflects investor behavior, risk tolerance, and liquidity preferences, with significant implications for stock performance, market stability, and corporate financing.

The construction materials industry, a vital component of the broader construction sector, plays a crucial role in economic development, especially in emerging markets like Indonesia. The construction materials sector, particularly in emerging economies like Indonesia, is a crucial driver of infrastructure development and economic progress. This industry

supports large-scale projects that align with governmental priorities, such as Indonesia's push for connectivity and urbanization. However, the sector's sensitivity to external economic changes, policy shifts, and commodity price fluctuations makes it a focal point for investors, who must carefully evaluate risk and reward before making investment decisions Rahayu et al., (2022); Apriani et al., (2023).

The volatility of construction material company stocks underscores the importance of understanding the factors influencing their holding periods. For investors, understanding the factors influencing holding periods in this sector is essential to optimize investment strategies and manage risk.

Four key financial metrics are believed to influence the holding period of stocks: bid-ask spread, market value, stock price, and return variance. The bid-ask spread, a measure of liquidity, often correlates with trading costs, where narrower spreads encourage shorter holding periods Latif et al., (2023). Market value, reflecting company size and stability, influences investor confidence and is negatively correlated

with holding periods during volatile periods Rahayu et al., (2022). Stock price serves as a proxy for investor sentiment and market valuation, with rising prices often encouraging longer holding periods due to expectations of sustained performance Putri et al., (2021). Meanwhile, return variance, a measure of price volatility, is associated with higher perceived risk, prompting investors to reduce their holding periods in uncertain market conditions Apriani et al., (2023).

Despite the significant role of these factors, limited research has been conducted on how they influence the holding period of stocks in Indonesia's construction materials sector. The period from 2021 to 2022 is particularly noteworthy due to the lingering effects of the COVID-19 pandemic, global economic uncertainties, and local governmental efforts to revitalize infrastructure development. During this time, investor behavior in the stock market was shaped by heightened volatility, making it essential to investigate the relationship between financial metrics and holding periods in this specific context.

This research aims to fill this gap by analyzing how bid-ask spread, market value, stock price, and return variance influence the holding period of construction material company stocks in Indonesia during the 2021–2022 period. The findings are expected to provide valuable insights for investors, companies, and policymakers, contributing to more informed decision-making in emerging markets.

LITERATUR REVIEW

Holding period

The holding period refers to the length of time an investor spends holding a particular investment, such as stocks, bonds, or other assets, before selling it. Holding periods can be classified into short-term and long-term investments. Short-term investments typically have a brief holding period, often less than one year, while long-term investments can last for many years.

According to (Paramita et al., 2023) , high-priced stocks last longer than low-priced stocks. However, in some stocks, high stock prices do not guarantee to hold longer, even shorter due to differences in investment horizons. This aligns with the research by Andriyani et al. (2021), which states that. If investors believe the company's shares will be profitable, they will hold them for a longer period in the hope that their selling price will rise in the future. In contrast, if they believe the share price will fall, investors will immediately sell their shares. The holding period serves as a measure of investor confidence in the company, with the hope of achieving high returns.

(Dumas et al., 2023) states that investors' decisions about the length of their holding period are influenced not only by stock prices but also affected by internal factors related to the company, including technical and fundamental indicators. Second, external factors which are external conditions such as inflation and regulatory changes. During the holding period of the stock, the length of ownership is adjusted according to the investor's needs. The calculation of the holding period is expressed in the following formula.

$$Holding\ Period = \frac{Shares\ Outstanding}{Trading\ Volume}$$

Bid Ask Spread

The bid-ask spread refers to the difference between the bid price and the ask price of an asset or financial instrument. The basic theory behind the bid-ask spread includes fundamental concepts about how prices are determined by supply and demand. (Chang et al., (2019) define the bid-ask spread as the difference between a stock's highest buying price (bid price) and lowest selling price (ask price).

When holding stocks for an extended period or selling securities at higher or lower transaction costs, investors consider the bid-ask spread. The bid-ask spread usually occurs at the announced bid or ask quotes, but it can also occur at prices between the bid and ask. Assets with lower transaction costs will be held by investors for a shorter period. This means that the higher the bid-ask spreads, the longer investors will hold their stocks in the hope of obtaining higher returns. The calculation of the bid-ask spread is expressed in the following formula.

$$Bid\ Ask\ Spread = Ask\ Price - Bid\ Price$$

Market value

Market value refers to the capitalization value of a company in the market, which is considered a reflection of how viable the company's stock is as an investment. According to (Fonna et al., 2023) the market value of a company reflects its size, or the actual value of its assets as reflected in the market. The larger the company, the higher its market value. Research by Pilatin (2022) states that companies that increase the number of outstanding shares will affect the market value of their shares from year to year.

Investors only sometimes respond positively to the issuance of new shares. However, investors perceive this as a negative signal that the company is experiencing financial difficulties, so they do not like holding their share ownership for a long time. This theory is supported by research by (Saputra et al., 2023) which states that the financial condition of a company is evident from its market value, serving as an indicator of the intrinsic value of the company's stock in its industry. The calculation of market value is expressed in the following formula.

$$Market\ Value = \frac{[\sum_{t=1}^{N} harga\ saham]}{N} \times Jumlah\ saham\ beredar$$

Stock Price

The theory of market efficiency is a concept in economics and finance that states that market prices reflect all publicly available information. According to this theory, a market is considered efficient if stock prices fairly reflect their intrinsic value, making it impossible to consistently achieve excessive profits using public information Fama (1970). This theory states that because all relevant information is already reflected in the current stock price, it is difficult for investors to achieve above-average market returns by analyzing publicly available information.

The stock price is the market value of a company that traded on the stock exchange. This price reflects several factors that influence the company's value, including financial performance, growth prospects, industry conditions, and overall market sentiment. The main factors affecting stock prices usually include financial performance, growth prospects, industry conditions, and market sentiment.

Variance Return

Variance return refers to the fluctuation of stock prices over a certain period, which can affect the risk level and potential returns of a stock investment. This variable measures how far stock prices move from the average or expected price during the holding period. Markowitz's theory (1959:79) reveals that a stock portfolio with low variance return is more recommended to investors. This is because investors can maximize their investment returns if the level of variance return can be minimized. Research by Huda et al. (2022) indicates that highly fluctuating stock prices reflect high risk. The calculation of variance return is expressed in the following formula:

$$\sigma^2 = \frac{\sum_{1=1}^{n}(R_{it} - E(R_i))^2}{n-1}$$

Where:

σ^2= Variance return on shares i

R_{it}= Rate of return on investment in shares in the period t

$E(R_i)$= Expected return from stock investment i

n = Number of periods

RESEARCH METHOD

This study will use a quantitative approach with historical data from companies in the construction materials for the period 2021-2022. The research will analyze the impact of bid-ask spread, market value, stock price, and variance return on the holding period of companies. The research model will include regression analysis to test the influence of independent variables on the holding period of companies. The sample selection will consider the availability of complete and accurate financial data for calculating bid-ask spread, market value, stock price, variance return, and holding period. Additionally, the sample will include a sufficient period to ensure that the analysis provides a representative picture of the impact of independent variables on the dependent variable being studied. The sample criteria for this research are as follows:

    a. Construction material companies listed on the Indonesia Stock Exchange (IDX) during the study period (2021-2022).

    b. Companies that have published their complete financial reports at the time of the research.

    c. Companies that present their financial reports in Indonesian rupiah.

There are currently 10 construction material companies. However, this study will only include 6 companies because 4 companies do not meet the criteria.

Table1. Construction Material Sub-Sector Companies Listed on the IDX

Number	Kode	Emiten
1	SMGR	PT Semen Indonesia Tbk.
2	INTP	PT Indocement Tunggal Prakarsa Tbk.
3	SMCB	PT Solusi Bangun Indonesia Tbk.
4	SMBR	PT Semen Baturaja Tbk
5	WTON	PT Wijaya Karya Beton Tbk
6	AYLS	PT Agro Yasa Lestari Tbk.

Sources: IDX.co.id

The sample collection for this research involves monthly data over a period of 2 years (24 months). Therefore, the total number of samples in this study is 144.

Data Analysis

In this research, the data analysis method will use panel data regression to measure the strength of

the correlation between variables and to show the direction of the relationship between the dependent and independent variables. This will be done through statistical methods using EViews 12 software to test the effects of bid-ask spread, market value, stock price, and variance return on the holding volume of companies in the construction materials sub-sector during the period 2021-2022. The regression model estimation in this study is as follows:

$$Yit = a + \beta_1 Spread_{it} + \beta_2 MV_{it} + \beta_3 SP_{it} + \beta_4 VR_{it} + e$$

Where:
Yit = Holding Period
a = Constant
β_n = Regression coefficient for each independent variable
Spread = Bid-Ask Spread
MV = Market Value
SP = Stock Price
VR = Variance Return
e = Error term

RESULTS AND DISCUSSION

Chow Test

The Chow Test was conducted to choose between the Fixed Effect Model and the Common Effect Model for data testing.

Table 2 Chow Test

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	35.281222	(5,134)	0.0000
Cross-section Chi-square	120.966000	5	0.0000

The results shown in Table 2 indicate a Probability value of 0.0000, which is less than 0.05. Therefore, the Fixed Effect Model was selected.

Hausman Test:

The Hausman test is conducted to compare the best model between the Fixed Effect Model (FEM) and the Random Effect Model (REM) for application in panel data regression.

Table 3. Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	175.606389	4	0.0000

The calculations shown in table 3 indicate a Probability value of $0.0000 < 0.05$, therefore, the chosen model is the Fixed Effect Model.

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Partial t-test

The t-test is used to perform individual regression coefficient testing to determine whether the population coefficient is equal to zero. A coefficient value of zero indicates that the independent variable does not have a significant effect on the dependent variable.

Table 4. Partial Test (T-Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	84.17152	10.30291	8.169683	0.0000
SPREAD	0.000786	0.002039	0.385447	0.7005
MV	-2.651685	0.358282	-7.401105	0.0000
SP	0.000311	0.000111	2.804606	0.0058
VR	-149.1911	46.29007	-3.222960	0.0016

The regression equation model obtained from this study is written as follow:

$$HP = 84.17152 + 0.000786*SPREAD - 2.651685*MV + 0.000311*SP - 149.1911*VR + e$$

The Bid-Ask Spread variable has a p-value of $0.7005 > 0.05$ this indicates H0 is accepted and H1 is rejected. Therefore, the bid-ask spread variable does not affect the stock holding period. The Market value variable has a p-value of $0.0000 < 0.05$ this indicates H0 is rejected and H2 is accepted. Thus, the market value variable negatively affects the holding period. The Stock Price variable has a p-value of $0.0058 < 0.05$ this indicates H0 is rejected and H3 is accepted. The stock holding period is positively influenced by the stock price variable. The Variance return has a p-value of $0.0016 < 0.05$, H0 is rejected and H4 is accepted thus the stock holding period is negatively influenced by the variance return variable.

F-Test

The F-test is used to test the hypothesis of regression coefficients simultaneously, to ensure the feasibility of the model chosen in interpreting the influence of independent variables on the dependent variable.

Table 5. Simultaneous Test

R-squared	0.714183
Adjusted R-squared	0.694987
S.E. of regression	1.154679
Sum squared resid	178.6601
Log likelihood	-219.8555
F-statistic	37.20356
Prob(F-statistic)	0.000000

The F-statistic shows a calculation result greater than the F-table, which is $37.2035 > 2.4363$. The Probability value is $0.0000 < 0.05$. It can be

concluded that H0 is rejected, and Ha is accepted. The variables Bid-Ask Spread, Market Value, Stock Price, and Variance Return together affect the Holding Period of stocks in a company.

Goodness of Fit Test (R²)

This test measures how well the variation in the dependent variable can be explained by the independent variables, thus increasing the R² value.

Table 6 Goodness of Fit Test (R^2)

R-squared	0.714183
Adjusted R-squared	0.694987
S.E. of regression	1.154679
Sum squared resid	178.6601
Log likelihood	-219.8555
F-statistic	37.20356
Prob(F-statistic)	0.000000

The panel data regression test results show an R-squared value of 0.694987. This indicates that the variables Bid-Ask Spread, Market Value, Stock Price, and Variance Return can explain 70% of the variation in the dependent variable Holding Period. This suggests that the model is quite good at explaining the variation in the Holding Period, although 30% of the variation is explained by other factors not included in this study model. Therefore, these regression results provide an understanding of the role of bid-ask spread, market value, stock price, and variance return variables in determining the holding period, and show that this model has a good explanatory capability.

The Effect of Bid-Ask Spread on Holding Period

Based on Table 4, the t-statistic value is smaller than the t-table and the p-value is greater than 0.05. This shows that the Bid-Ask Spread is not statistically significant in influencing the Holding Period at the 0.05 significance level. Indicating that the Bid-Ask Spread does not partially affect the Holding Period. This is because investors in construction companies might be more long-term oriented, focusing on fundamentals rather than short-term trading costs. They might prioritize factors like company growth prospects, and macroeconomic conditions over transaction costs. This finding is consistent with the results of studies by Apriani et al., (2023) and Latif et al., (2023).

The Effect of Market Value on Holding Period

Based on Table 4 shows a negative relationship between Market Value and Holding Period, where an increase in Market Value results in a decrease in Holding Period. Market values often reflect investor sentiment and external economic conditions. In uncertain market conditions, investors may be more inclined to sell stocks quickly rather than holding onto them for the long term. This sentiment-driven behavior can shorten the average holding period for stocks in the construction sector. Latif., et al., (2023) showing that during the pandemic period, market value had a negative relationship with the holding period of companies.

The effect of Stock Price on Holding Period

Based on Table 4, the t-statistic value is greater than the t-table, and the p-value is less than 0.05. This indicates that the Stock Price has affected the Holding Period. The positive t-statistic value shows a positive relationship between the Stock Price and Holding Period, meaning that when Stock Price increases, the Holding Period also increases. Positive trends in the construction industry or the broader economy can boost stock prices. Investors might be influenced by these trends to hold their shares longer, expecting favorable market conditions to persist. This finding is like the research by Rahayu et al., (2022), which found that investors typically conduct technical analysis to hold their stocks, based on historical data in the stock market. Technical indicators provide signals for investors to make optimal trading decisions based on anticipated price fluctuations, so the higher the stock price, the longer the holding period in hopes of receiving dividends. This is because high stock prices often have favorable dividend policies, attracting investors to hold their stocks longer.

The effect of Variance Return on Holding Period

Based on Table 4, the t-statistic value is greater than the t-table in absolute terms, and the p-value is less than 0.05. The research shows that the Variance Return variable partially influences the Holding Period. The negative t-statistic value indicates a

negative relationship between variance return and holding period, where an increase in variance return tends to decrease the holding period of company stocks. Variance return reflects the degree of volatility in a stock's returns. The construction sector is highly cyclical, with its performance closely tied to economic conditions. During periods of high volatility, investors may prefer to minimize exposure to cyclical industries, opting for quicker exits rather than enduring economic downturns. During periods of economic instability, such as the post-pandemic recovery phase, investors are more sensitive to fluctuations in the market. They tend to prioritize stability and may react quickly to sell off stocks that show high variance returns to secure their investments. This is consistent with Huda et al. (2022), who found that trader investors seek capital gains from stock increases and risk adverts avoid risk.

CONCLUSION

This study reveals that market value, stock price, and variance return significantly influence the holding period of construction material company stocks listed on the Indonesia Stock Exchange (IDX) during the 2021–2022 period. Market value and variance return show a negative relationship with the holding period, indicating that stocks with larger market capitalization or higher volatility tend to be held for shorter periods. Conversely, stock price demonstrates a positive relationship, where rising stock prices encourage investors to hold stocks longer in anticipation of continued positive trends. However, the bid-ask spread does not have a significant impact on the holding period, suggesting that investors in this sector focus more on long-term fundamentals than short-term transaction costs. Beyond statistical results, these findings provide valuable insights for advancing the stock market in Indonesia, especially in the context of post-pandemic recovery and heightened market volatility.

Investors should consider volatility (variance return) as a key factor in their investment decisions, avoiding highly volatile stocks if they have low risk tolerance. Rising stock

prices can be a positive signal for long-term investment strategies. Investors should utilize both technical and fundamental analysis to support their decision-making.

To mitigate the impact of market volatility, investors are encouraged to diversify their portfolios by including stocks from other sectors with lower volatility.

Companies should improve the quality of financial reporting and provide more transparent information to build investor trust, thereby attracting more stable, long-term investors. Issuers can consider consistent dividend policies or share buybacks to reduce price fluctuations and increase stock attractiveness to investors. Companies with high market value should leverage their position to strengthen their brand and attract institutional investors who tend to hold stocks longer.

Regulators can encourage increased market liquidity by introducing policies such as reduced transaction fees or tax incentives for long-term investors. IDX can implement stricter monitoring systems to prevent excessive speculation that

might increase the variance return of stocks. Educational programs focused on fundamental and technical analysis can help investors better understand the dynamics of holding periods and make wiser decisions.

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