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# INVESTMENT OPPORTUNITY SET STRENGTHEN THE EFFECT OF PROFITABILITY, MANAGERIAL OWNERSHIP, CAPITAL STRUCTURE FIRM VALUE?

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**Abstract**

*This study aims to examine the effect of profitability, managerial ownership, and capital structure on firm value and to test whether the investment opportunity set strengthens Profitability, managerial Ownership, and capital structure on firm value. As part of the purposive sampling method used in this study, which leverages secondary data, 60 data points were collected from 15 firms between 2018 and 2021 that met the required requirements. Moderate Regression Analysis (MRA) is the method of data analysis used in this study. According to the findings of the study, profitability has not to effect on firm value, managerial ownership has a positive effect on firm value, capital structure has a positive effect on firm value, investment opportunity sets weaken the relationship between profitability on firm value, investment opportunity sets weaken the relationship between managerial ownership on firm value, and investment opportunity set strengthens the relationship between capital structure on firm value.*

## Introduction

Investment in the property and real estate industry has a long term and may develop in step with economic trends, making it a viable investment. The property industry is resistant to various circumstances, including digital disruption. In fact, during the Covid-19 pandemic, property prices tended to rise. Indonesia's property and real estate market is beginning to show signs of improvement, which is in line with the recovery of the economic sector and people's activities gradually returning to normal. Based on the Commercial Property Development report (PPKOM) issued by Bank Indonesia, demand for commercial property in quarters 1-2022 showed an increase of 1.19 per cent from the previous year (Kompas Indonesia, 2022). Although the growth is still very limited after being affected by the Covid-19 pandemic for the last two years, it is because public consumption has not recovered. This can be seen during the first nine months of 2021. Household consumption (RT) has only grown by 1.50% (YoY) (CNBC Indonesia, 2021).

The investor's evaluation of a company is known as a firm value and is frequently linked to stock prices. Firm value and stock price are positively correlated, meaning that when stock prices rise, so does the worth of a firm. Investors will use the company's valuation to gauge its performance over the next few years. One foundation for evaluating a firm's success is kept on its value. Apart from that, it can also be an index of the market assessment of a company as a whole (Rizqi & Anwar, 2021).

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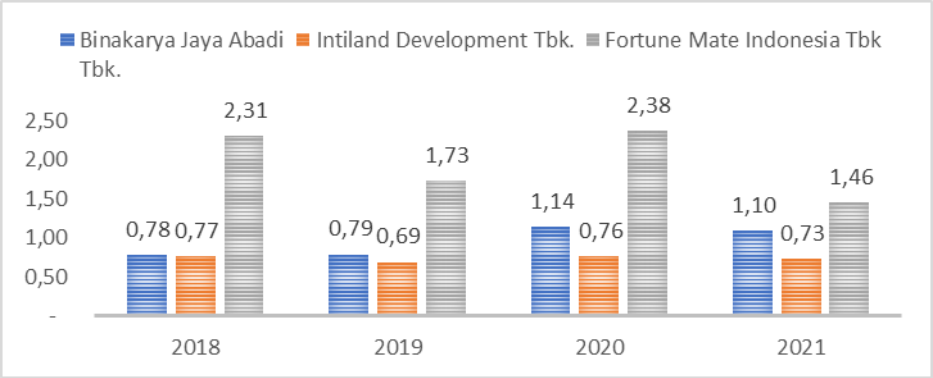


**Figure 1. Graph of Valuation of Businesses in the Property and Real Estate Subsector**
Source: Property and Real Estate Companies Financial Report, 2022

Graph 1 above shows the firm value, which fluctuates every year. PT Binakarya Jaya Abadi in 2018 was at 0.78 and then increased to 0.79 in 2019. It experienced an increase in 2020 to 1.14 and decreased in 2021 to 1.10. PT Intiland Development Tbk in 2018 was at 0.77 and decreased to 0.69 in 2019. In 2020 it increased to 0.76 and decreased again in 2021 to 0.73. There was fluctuation at PT Fortune Mate Indonesia Tbk, which showed that in 2018 it was at 2.31, then decreased in 2019 to 1.73, experiencing a significant increase to 2.38 in 2020 and 1.46 in 2021. This phenomenon is caused by the market's fluctuation in share prices, which is determined by profitability and other factors such as managerial ownership and capital structure.

A company's good or bad condition is assessed from its financial performance by analyzing financial ratios, one of which is the profitability ratio. Profitability is a ratio that illustrates how successfully a business uses its resources and operates (Brigham & Houston, 2013). This profitability is a matter for consideration by potential investors and shareholders because it relates to the share price and dividends to be received. The better a corporation can use its current resources or assets to create revenues, the higher its profitability will be, creating high corporate value and maximizing dividends to its shareholder. Several studies on profitability have been carried out, but with varying and inconsistent results. Research conducted by (Mubyarto, 2020) says profitability significantly impacts the stock price. It has been persistent to findings by Natalia (Natalia & Jonnardi., 2022) that Prosperity has a favourable and considerable impact on the worth of a business. These findings, however, go counter to Thaib's research, which found no evidence of a substantial relationship between profitability and business value.

Management stock ownership is the amount of common stock to which management is a shareholder. The managerial choices made for the organization will be reviewed as a result of management ownership. Management stock shareholding is the ratio of common property stock belonged by management. The judgments made by the corporate management would be scrutinized because of management ownership. According to empirical data from Anggraini and Fasridon's study, managerial ownership structure affects business value (2021). Evidence that contradicts the research's conclusion that management shareholding does not impact business value includes (Nurkhin, Wahyudin, & Fajriah, 2017).

Owner's equity, short-term debt, current liabilities, and other sources of funding that support long-term assets make up the capital structure (Wari & Trisnaningsih, 2021). Here, DER represents the balance sheet. DER has a portion used to calculate debt and equity. The amount can be calculated by comparing all debts classified as current debt with all equity. The capital structure in a company is a crucial consideration in making decisions in the financial sector. Companies can get funding from internal parties and external parties. Internal capital structure is obtained from the sale of shares and retained earnings.

Meanwhile, the external capital structure provides credit from investors or other parties such as banks (Savitri & Irwansyah, 2021). Research conducted by (Susanti, Mintarti, & Asmapane, 2018) and (Mudjijah, Khalid, & Astuti, 2019) claims that Capital structure has a detrimental effect on the business worth. According to research (Irawan & Kusuma, 2019), capital arrangement does not influence a firm's worth.

Currently, the firm's financing possibilities in the financial system are favourable and influence how profitability, management ownership, and capital structure affect firm value. The Investment Opportunity Set (IOS) can affect how managers, investors, and creditors see the firm. The stock market value indicator used to determine a firm's worth is heavily impacted by investment opportunities. An investment opportunity set (IOS) is a future business opportunity anticipated to generate a sufficient return to raise the company's worth (Fitriyah, 2019).

These phenomena and research gaps lead to problems of consistency in the findings of studies examining the influencing of profitability, corporate shareholding, and market assessment in accounting records, indicating the existence of contingent variables that impact the connection to the three. The investment opportunity set is used in this study as a moderating variable, which distinguishes it from earlier studies. The purpose of that kind of study was to examine and evaluate whether (1) profitability has a positive effect on firm value, (2) managerial ownership has a positive effect on firm value, (3) capital structure has a positive effect on firm value, (4) IOS strengthens the relationship between profitability on firm value, (5) IOS strengthens the relationship between managerial ownership on firm value and (6) IOS strengthens the relationship between capital structure on firm value. For the year 2018–2021, the sample consists of the enterprises registered to the Indonesia Stock Exchange are the residential and commercial property industries. Research on profitability, management ownership, capital structure, and investment opportunity sets is anticipated to contribute to the academic literature. It will also enlighten academics and researchers. The knowledge regarding the things that may be done by the business to raise firm value is anticipated to be the practical contribution of this study.

**A. Agency Theory**

Jensen and Meckling (1976) identified the company's connection, whereas a legal agreement to management (agent) and the investor (principal). Due to the potential for the agent to act contrary to the interests of the principal, resulting in agency fees, the owner and the agent have a conflict of interest. In agency theory, conflicts are typically brought on by decision-makers who refrain from taking risks due to poor decisions. The risk should be absorbed by the shareholders, according to the decision-makers. This causes the managers' and the shareholders' interests to be out of sync. A party hired by shareholders to represent their interests is called management. Because of this, management is held accountable to shareholders for all of its activities. The agent is seen to behave in a way that is consistent with the interests of the shareholders if both sides have the same objective of increasing the company's worth. Conflicts between shareholders and firm management can be mitigated by requiring managers to get the firm in line by attracting shareholders and managers to get choices under the objectives of stockholders (Sri Wahyuni, Dev, Rifki Khoirudin, & Dev, 2020).

**B. Signalling Theory**

The theory is explicitly designed to be employed in an endeavour to increase the worth of the firm. Signal Theory was proposed for the first time (Ross, 1977). According to signalling theory, the firm's investment choices will send a positive message about its future development, driving up the share price on the stock exchange, which has given size to the firm's worth (Wulanningsih & Agustin, 2020). This theory explains that companies that have good quality in the market can also give good signals to the company. Due to this, businesses must maximize their financial performance consistently. That way,

investors can get a return on the investment made. The link between signal theory and firm value is where the firm gives investors positive signalling invaluable data. With the signal in the form of good information, investors will likely be interested, so investment decisions will increase. Additionally, operational profit will rise, and creditors will feel more comfortable lending the business money in debt.

**C. The pecking order theory**

According to the pecking order idea, businesses favour internal money over external capital, particular debt over risky debt, and common stock as a last resort (Miner, 2005). The proposal of the chain of importance idea (Myers & Majluf, 1984) adopts the premise that there is no fixed goal proportion of shareholder equity and that the company has a hierarchy of preferred funding sources. This theory's central tenet is that there are two kinds of capital: internal and external. This idea explains why successful businesses often take on modest levels of debt. This is not because businesses have a low goal-debt ratio; they only need a little outside funding. Due to two factors, namely (1) limited internal funding and (2) debt being the preferable external source, less profitable companies will often employ higher debt levels. As a result, the pecking order hypothesis establishes a hierarchy of funding sources, including internal (retained earnings) and external sources (debt and stocks). Myers (1984) also argued that the management and shareholder knowledge gaps are to blame for using external sources. Because management has access to more information than shareholders, information asymmetry exists.

**D. Trade-off theory**

In line with the trade-off argument put out by (Myers & Majluf, 1984), Companies will take on debt up to a point where the risk of financial difficulty outweighs the tax benefits (tax shields) from further debt (financial distress). The cost of bankruptcy (bankruptcy costs), reorganization (reorganization costs), and agency expenses (agency costs), which rise as a result of a company's loss of credibility, are the costs of economic hardship. By presumption of balanced economic justification and symmetric information, the advantages of borrowing money are just a few of the factors taken into account by taxes, agency fees, and costs related to financial difficulties when calculating the optimum capital structure. As long as the benefits exceed the drawbacks, taking on more debt is still appropriate.

**E. Firm Value**

When a corporation is traded to interested parties or stakeholders, high stock prices can also result in high corporate value or company prices. Firm value is an established view of investors on the firm's capacity to enhance its skills. In addition, a high firm value shows how the company's credibility is running and the firm's prospects for the future on a going concern basis (Setiadharma & Machali, 2017). To measure the value of a firm in this research, researchers used proxies based on price and firm value and proxies based on the investment that has been used as a measure in measuring firm value, namely Tobin'Q. In previous research (Murwaningsari & Ardi, 2018) and (Sunardi, Husain, & Kadim, 2020). Tobin's is determined by The book worth has been counted by multiplying the market price by book value, which has been derived by computed by dividing equity by the number of shares remaining.

**F. Profitability**

The capacity of a business to generate income (profit) in a specific amount is known as profitability. Investors will feel more confident investing in a firm if it is more profitable. Return on Assets, sometimes known as ROA, is one metric for profitability. ROA is a ratio that compares a company's profit or net margin to its total resources or an average number of assets. Thus, the profitability ratio is a proportion that indicates so much more an asset can provide net income or profit (Husna & Satria, 2019). How well the business handles these assets to produce profits may be determined by comparing the value of assets and net income (Atidhira & Yustina, 2017). Based on this, this study employs a

measurement instrument created with research to calculate the ratio of return on assets (Husna & Satria, 2019) by contrasting net profit amounts with all assets.

**G. Managerial Ownership**

Managerial ownership is part of corporate governance where the manager is involved in shared ownership or can be called a shareholder. This managerial ownership will be stated as a percentage based on the percentage of the company's shares that managers, commissioners, and directors belonged to the year ending. In this paper, it is assumed that the management would make every effort to serve the interests of the shareholders the greater the managerial ownership. The management will also earn if the business is profitable (Bintara, 2018).

**H. Capital Structure**

The financial system consists of debt since it determines how much of a company's funding comes from debt, often known as (debt financing) (Hermuningsih, 2012). According to (Pratiwi, Waruwu, Utomo, & Syahputra, 2019). Personal assets and lengthy debt are contrasted in capital structure. Capital structure is a way to compare corporate stock and debt (Danlami, Aliyu, & Danmaraya, 2018). Alternatively, the ratio of a stock, both preferred and shared, to debt instruments on the balance sheet. The percentage of Sustainable long-term financing using debt and equity, either extraordinary or ordinary, is defined by capital structure. In order to assess the capital structure of the firm, this research makes use of a metric established by (Pratiwi et al., 2019), which contrasts a company's debt and assets having the Debt to Equity Ratio as a metric (DER).

**I. Investment Opportunity Sets**

The number of investment opportunities companies get to decide what investments to make in the future (Masruroh & Farid, 2019). The magnitude of the investment opportunity is influenced by management's perspective on the firm's financial condition and growth prospects. Market to Book Value of Equity, one of the proxies in IOS, explains how the market evaluates returns or returns on investment activities in the coming day concerning the expected return on using company equity. The greater the IOS ratio, the lower the return in the kind of cash returns that can be provided to stocks (Hidayah, 2017). The following conceptual framework explains how one dependent variable, three independent variables, and one moderating variable in this study relate to one another:

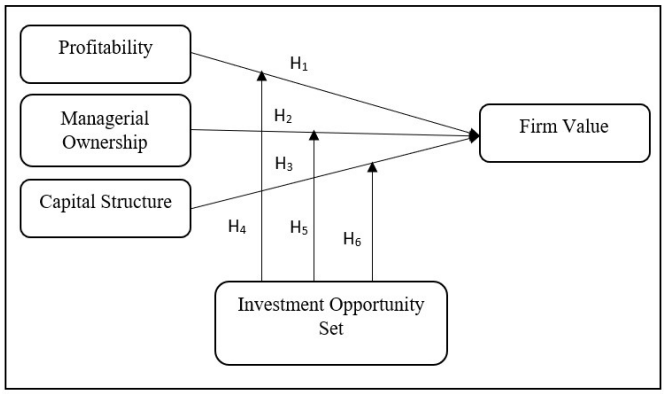


**Figure 2. Research Model**

Research Source: Research data processed by the author, 2022

**J. The Effect of Profitability on Firm Value**

As a result of its capacity to identify businesses that may provide healthy profits for shareholders, high profitability might entice investors to invest in them. According to signal theory, everything a corporation does is a signal, and investors will take notice of it. Investors will invest in the firm if they believe it has high future potential, which will raise the stock price. The stock price will rise in tandem with the company's profits whenever it

experiences an uptick, increasing its worth. The capability of the business to get higher profits will be shown by the degree of profitability. The business's prospects will be more robust and more profitable, and investors will see the business favourably. This is consistent with research performed by (Mubyarto, 2020), who said that profitability does have a substantial impact on stock valuation.

Furthermore, (Rizqi & Anwar, 2021) The firm's capacity to create more income will be shown by a higher degree of profitability. By doing so, the firm's future possibilities will be enhanced. Its profitability growth will also improve the company's standing among investors.

$H_1$: Profitability has a positive effect on firm value

**K. The Effect of Managerial Ownership on Firm Value**

Managerial Ownership is the composition of the number of managerial shares in proportion to where management has the same authority as other shareholders in managing the company. This managerial ownership aims to reduce agency conflicts because managers with rights to company shares will work to achieve personal interests. The high number of managerial shares will affect managers' performance to improve company performance (Widyasari, Mukzam, & Prasetya, 2015). Agency theory states that if the number of managers' shares is high, management will optimize the use of resources to achieve the company's interests. However, if share ownership is lower, managers will try to maximize their performance for their benefit (Nurwahidah, Hunan, & Putra, 2019). Empirical evidence (Kusumawati & Setiawan, 2019), (Nurwahidah et al., 2019), (Widianingsih, 2018), (Susilawati & Rakhman, 2018) proves that managerial ownership can affect firm value. Managers have more contributions through share ownership, so managers will optimize their business so that share values rise and maximize profits to increase firm value.

$H_2$: Managerial ownership has a positive effect on firm value

**L. The Effect of Capital Structure on Firm Value**

According to the trade-off idea, if the financial leverage is below the target level, every dollar of new debt will raise the firm's worth. On the other hand, if any additional financial leverage is outside the appropriate range, debt will decrease the firm's market value (Myers & Majluf, 1984). The trade-off theory, therefore, anticipates a positive determinant of capital structure and firm value when the appropriate financing target point has not been attained. The firm must carefully evaluate the capital structure used for funding since It will affect how much the firm is worth. The financial leverage compares the levels of long-term debt and shareholder capital. Since taxes are calculated from operational profit after deducting loan interest, which results in a more significant net profit that belongs to shareholders, businesses that use debt in their operations will benefit from tax savings (Meythi, 2012). The firm's value will increase with its capital structure for that outcome. However, a company cannot simultaneously use all debt in its capital structure. This results from the fact that when debt levels rise, so does the organization's financial risk. Empirical evidence (Dahar, Yanti, & Rahmi, 2019), (Savitri & Irwansyah, 2021), and (Firnaliyanti, Mintarti, & Asmapane, 2019) substantiates The significance of a corporation's capital structure on profitability.

$H_3$: Capital structure has a positive effect on firm value

**M. Investment Opportunity Set Strengthens The Relationship Between Profitability on Firm Value**

The market may have informed which corporation can effectively manage its resources if it experiences high corporate profits. The amount of money available to the firm for investment and retained earnings will rise as profitability exists. The pecking order idea states that businesses with high-profit margins have more internal financing sources. A high level of business earnings might allow management to set aside money for significant investments. Investment decisions made by the firm may signal to the market that substantial profits will be generated in the future, increasing the share price. The company

has strong business prospects for the future due to its high degree of profitability and wide range of investment opportunities, which exudes confidence among investors and influences the company's stock price (Risqi et al., in Habibi and Andreany, 2018). Wijaya and Sedana's (2017) and Habibi and Andreany's (2018) research findings demonstrate that IOS increases the link between profitability and business value.

$H_4$: Investment opportunity set strengthens profitability on firm value

**N. Investment Opportunity Set Strengthens The Relationship Between Managerial Ownership on Firm Value**

Managerial ownership illustrates the dual function of management, who simultaneously serves as a shareholder. Of course, managers want the business to avoid financial troubles or bankruptcy as management and stakeholder (Tarjo & Jogiyanto, 2020). If there are several manager shares, management will use resources as efficiently as possible to further distinct corporate interests. This will raise the company's worth. The impact of managerial control over the firm value will be strengthened by a high investment opportunity set (IOS). Managerial parties will favour taking advantage of the chance to invest and profit. Khairun's (2018) and Andri and Dewi's (2019) research results prove that IOS strengthens the connection between ownership concentration and enterprise value.

$H_5$: Investment opportunity set strengthens managerial ownership on firm value

**O. Investment Opportunity Set Strengthens the Relationship between Capital Structure on Firm Value**

The option of whether to employ internal or external sources of funding is left up to the firm. According to the pecking order idea, the firms' top options are retained profits, debt, and securities funding sources. Retained profits are a tool that managers may employ to fund daily operations. Investment operations are carried out to seize possibilities for potential future earnings. It is intended that the firm would expand through reinvestment. The share demand will rise as soon as investors believe the firm has promising future possibilities, increasing the business's valuation. It has consistent with research undertaken by (Nurcahyani, 2019) and (Suardika & Sparta, 2017), which claim that when a business expands, it needs cash. Growing businesses will have more access to financing. As a result, the rise in capital in a firm will correspond to the number of investment possibilities the company owns.

$H_6$: Investment opportunity set strengthens capital structure on firm value

## Method

This kind of study, known as causality research, looks at the connections between different variables using data from earlier studies. The research's objective is to determine the effect of business valuation, tempered to the investment opportunity set, on profitability, management ownership, and capital structure. An organization Companies that traded on the Indonesia Stock Exchange between 2018 and 2021 functioned as the measure of measure in this research. This quantitative research utilizes secondary data from the banking statements of firms that act as sampling and are selected for a specific reason—operational variable analysis of the connection among business value and profitability, managerial ownership, and capital structure.

**Table 1. Operational Definition and Variable Measurement**

| Dependent Variable | Scale |
|---|---|
| **Firm Value**<br>Investors' perceptions of how businesses might improve their chances of success are frequently linked to stock prices. High stock prices can also result in a high corporate value or company prices if sold to interested parties or stakeholders (Murwaningsari & Ardi, 2018). | Ratio |

| | | |
|---|---|---|
| $Tobin'Q = \frac{Total\ Market\ Value + Total\ Book\ Value\ of\ Liabilities}{Total\ Book\ Value\ of\ Asset}$ | | |
| | **Independent Variable** | **Scale** |
| | **Profitability**<br>How well the business handles these assets to produce profits may be determined by comparing the value of assets and net income. (Atidhira & Yustina, 2017).<br>$ROA = \frac{Earning\ After\ Tax}{Total\ Asset}$ | Ratio |
| | **Managerial Ownership**<br>percentage of management shares owned by those with voting rights in the firm (commissioners and directors) (Nurkhin et al., 2017).<br>$KM = \frac{Number\ of\ shares\ owned\ by\ management}{Outstanding\ shares}$ | |
| | **Capital Structure**<br>Proportion in fulfilling company spending needs with long-term funding sources originating from internal funds and external funds (Savitri & Irwansyah, 2021).<br>$DER = \frac{Total\ Liability}{Total\ Equity}$ | |
| | **Moderating Variable** | |
| | **Investment Opportunity Sets**<br>The number of investment alternatives that businesses have to choose from when determining future investments (Masruroh & Farid, 2019).<br>$MVBVE = \frac{Number\ of\ shares\ outstanding\ x\ Closing\ Price}{Total\ Equity}$ | Ratio |

Source: Research data processed by the author, 2022

When two or more independent variables are changed in value to serve as predictor factors (those up and down) in this study's research, multiple linear analytic methods are used to determine how the state of the predictor variables (up and down) will be (Sugiyono, 2017). The regression coefficient will be utilized in multiple regression analysis to evaluate whether the hypothesis is accepted or rejected (Ghozali, 2018). Multiple linear regression analysis is made to aim effecting of revenues and profits, managerial ownership, and capital structure on firm value and to ascertain if the investment opportunity set may enhance the link between Profitability, Ownership, and capital structure. The interaction test, specifically moderated regression analysis, is employed to examine the effect of moderating factors (MRA). The following is the regression equation model that will be looked at:

$$Y = \alpha + \beta 1P + \beta 2MO + \beta 3CS + \beta 4P*IOS + \beta 5MO*CS + \beta 6CS*IOS + e$$

Information:
α: Constant
β: regression coefficient
Y: Firm Value (Dependent variable)
P: Profitability

MO: Managerial Ownership
CS: Capital Structure
e: error coefficient

**Results and Discussion**

The population in this study comprises 65 sub-property and real estate firms registered on the Indonesia Stock Exchange (IDX) from 2018 to 2021. The sample is a subset of the population, and this population's characteristics are estimated. The sampling approach uses a purposive sampling technique by defining the sample according to the following criteria.

**Table 2. Purposive Sampling Criteria**

| No | Information | Total |
|---|---|---|
| 1 | Number of property and real estate companies on the IDX in the 2018-2021 period | 65 |
| 2 | Companies that do not publish complete data for the 2018-2021 period | (45) |
| 3 | Companies that were delisted during the study period | (5) |
| | The number of sample companies used | 15 |
| | Number of years of research | 4 |
| | **Final sample** | **60** |

Source: Research data processed by the author, 2022

The table below explains the broad characteristics of the data without changing the study's conclusions. Each variable underwent a descriptive statistical analysis. The lowest, maximum, average, and standard deviation data from this investigation were included in the analysis.

**Table 3. Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| P | 60 | ,00 | ,15 | ,0402 | ,03793 |
| MO | 60 | ,00 | ,82 | ,1400 | ,21715 |
| CS | 60 | ,08 | 1,73 | ,5753 | ,42357 |
| FV | 60 | ,22 | 3,75 | ,9193 | ,69049 |
| IOS | 60 | ,15 | 4,73 | ,8793 | ,94305 |
| Valid N (listwise) | 45 | | | | |

Source: Research data processed by the author, 2022

Profitability (P) is measured using a proxy return on assets (ROA) which gets a min value of 0.00, a max value of 0.15, an average value (mean) of 0.0402, and a standard deviation value of 0.3793. Managerial Ownership (MO) gets a min value of 0.00, a max value of 0.82, an average value of 0.1400, and a standard deviation of 0.21715. Capital structure (CS) is calculated by using a debt-to-equity ratio (DER) proxy with a min value of 0.08, a max value of 1.73, an average value (mean) of 0.5753, and a standard deviation value of 0.42357. Firm value (FV) is counted by having Tobin's Q proxy with a min value of 0.22, a max value of 3.75, an average value (mean) of 0.9193, and a standard deviation value of 0.69049. The investment opportunity set (IOS) has a min value of 0.15, a max value of 4.73, an average value of 0.8793, and a standard deviation of 0.94305.

**A. Normality test**

The variables in this research satisfy the criteria of normality, as evidenced by the fact that the data on the p-plot graph are distributed, encircle the diagonal line and go forward in the same direction as the diagonal line.

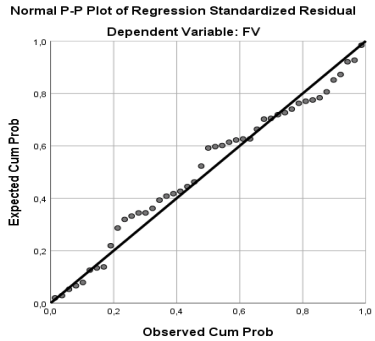


**Figure 3. Normal P-Plot Regression Standardized Residuals**
Source: Researcher data, processed in 2022

Researchers also conducted a normality test with the Kolmogorov-Smirnov Test. The outcome of data management using the below are obtained:

**Table 4. One-Sample Kolmogorov-Smirnov Test**

| | | Unstandardized Residual |
|---|---|---|
| N | | 45 |
| Normal Parameters[a,b] | Mean | ,0000000 |
| | Std. Deviation | ,02305062 |
| Most Extreme Differences | Absolute | ,111 |
| | Positive | ,063 |
| | Negative | -,111 |
| Test Statistic | | ,111 |
| Asymp. Sig. (2-tailed) | | ,200[c,d] |

a. Standard is the test allocation.
b. Derived by the information.
c. Lilliefors Significance Correction.
d. This represents the minimum level of importance.
Source: Researcher data, processed in 2022

Testing with Kolmogorov-Smirnov shows the probability (significance) of testing is more significant than 0.05, namely 0.200. This demonstrates the normal distribution of the data.

**B. Multicollinearity Test**

**Table 5. Coefficients**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | Collinearity Statistics | |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | Tolerance | VIF |
| 1 | (Constant) | ,098 | ,015 | | | |
| | P | ,229 | ,186 | ,012 | ,289 | 3,461 |
| | MO | ,090 | ,040 | ,021 | ,302 | 3,310 |
| | CS | ,331 | ,020 | ,183 | ,214 | 4,681 |
| | IOS | ,852 | ,015 | 1,160 | ,062 | 16,145 |
| | P*IOS | -,019 | ,098 | -,003 | ,124 | 8,088 |
| | MO*IOS | -,051 | ,046 | -,010 | ,330 | 3,030 |
| | CS*IOS | -,291 | ,028 | -,176 | ,092 | 10,850 |

a. Dependent Variable: FV

Source: Researcher data, processed in 2022

As seen in the outcome in the table above, the calculated VIF value for the investment opportunity set variable, capital structure*investment opportunity set, has a value exceeding ten. The two parameters' reliability coefficient is less than 0.10, indicating that there are symptoms of multicollinearity in this study, however, according to Gujarati (2009). If the study has a moderating variable, this is considered reasonable. This is because the nature of moderation mutually reinforces the interaction between the independent variables.

**C. Heteroscedasticity Test**

**Table 6. Nonparametric correlations**

| | | | P | MO | CS | IOS | Unstandardized Residual |
|---|---|---|---|---|---|---|---|
| Spearman's rho | P | Correlation Coefficient | 1,000 | -,130 | -,363* | ,281 | ,004 |
| | | Sig. (2-tailed) | . | ,394 | ,014 | ,061 | ,981 |
| | | N | 45 | 45 | 45 | 45 | 45 |
| | MO | Correlation Coefficient | -,130 | 1,000 | ,355** | -,298* | ,252 |
| | | Sig. (2-tailed) | ,394 | . | ,005 | ,021 | ,095 |
| | | N | 45 | 60 | 60 | 60 | 45 |
| | CS | Correlation Coefficient | -,363* | ,355** | 1,000 | ,103 | ,129 |
| | | Sig. (2-tailed) | ,014 | ,005 | . | ,432 | ,399 |
| | | N | 45 | 60 | 60 | 60 | 45 |
| | IOS | Correlation Coefficient | ,281 | -,298* | ,103 | 1,000 | ,084 |
| | | Sig. (2-tailed) | ,061 | ,021 | ,432 | . | ,585 |
| | | N | 45 | 60 | 60 | 60 | 45 |
| | Unstandardized Residual | Correlation Coefficient | ,004 | ,252 | ,129 | ,084 | 1,000 |
| | | Sig. (2-tailed) | ,981 | ,095 | ,399 | ,585 | . |
| | | N | 45 | 45 | 45 | 45 | 45 |

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher data, processed in 2022

The heteroscedasticity test using Spearman's Rank Correlation test states that profitability has a significance value of 0.981>0.05, managerial Ownership with a value of 0.095>0.05, and Capital Structure 0.399>0.05, so it can be said to be free from heteroscedasticity.

**D. MRA Test**

**Table 7. Test Results**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | ,098 | ,015 | | 6,658 | ,000 |
| | P | ,229 | ,186 | ,012 | 1,234 | ,225 |
| | MO | ,090 | ,040 | ,021 | 2,248 | ,031 |
| | CS | ,331 | ,020 | ,183 | 16,779 | ,000 |
| | IOS | ,852 | ,015 | 1,160 | 57,107 | ,000 |
| | P*IOS | -,019 | ,098 | -,003 | -,191 | ,849 |
| | MO*IOS | -,051 | ,046 | -,010 | -1,121 | ,270 |
| | CS*IOS | -,291 | ,028 | -,176 | -10,544 | ,000 |
| | F Test | 5587,849 | | | | |
| | Sig F | ,000 | | | | |

| | |
|---|---|
| Adjusted R Square | 0,899 |

a. Dependent Variable: FV
Source: Researcher data, processed in 2022

Under table 7, the regression equation is as follows:

Y=0.098+0.229P+0.090MO+0.331CS+(0.019)P*IOS+(0.051)MO*CS+(0.291)CS *IOS

The outcomes in table 5, the Adjusted R Square value in this study shows the number 0.999, meaning that the variables of Profitability, managerial Ownership, capital structure, P*IOS, MO*IOS, and CS*IOS have an 89,9% effect on firm value. The remaining 10.1% is affected by additional factors not looked at in this research. The outcome of the ANOVA test on the F statistic is 5587,849, with information in table F of 2.19. The test results are 55587.849>2.19 with a significance level of 0.000. The outcome is that Profitability, managerial Ownership, capital structure, P*IOS, MO*IOS, and CS*IOS have a significant overall or simultaneous effect on business.

As seen in the outcome in the table above, the profitability significance value shows 0.225>0.05. These findings support the assertion that profitability has no bearing on corporate value. Therefore, $H_1$ is rejected, meaning that profitability does not affect the firm value. This shows that investors do not only rely on ROA as a metric for evaluating business performance to forecast overall stock returns on the capital market (particularly on the IDX). Therefore, this ROA does not ensure growth in share price or firm value from investors. In addition, there is a tendency for investors to prefer to make short-term investments (trading) so that they pay less attention to other aspects, such as profitability when buying company shares because they look more at market conditions when they want to buy or sell their shares so that profitability is not impacting firm value in this research. The outcome of this research concurs with those of research (Savitri & Irwansyah, 2021) which shows that A return on assets does not affect its worth. This demonstrates that the company's profit margin does not alter the company's worth. ROA is used in this study as a stand-in for variable profitability. The quantity of a company's profit-generating resources cannot affect the firm's value.

According to the outcome of the table above, the number 0.031 > 0.05 exemplifies the significance of management ownership. According to these data, The component of profitability affects the firm's profitability. Therefore, $H_2$ is accepted, indicating that corporate governance has a considerable beneficial effect on firm value by a greater degree of managerial ownership correlating with a higher level of firm value. These findings are consistent with agency theory, which holds that management would maximize resource usage to further the organization's interests if the number of managers' shares is high. Each firm manager might attempt to maximize the value or profit created in decision-making by taking into account the influence of managerial ownership to impact raising the value of a company. Empirical data from earlier studies also demonstrate that Managerial shareholding substantially impacts business value. Previous studies that looked at how management ownership affected corporate value were done by (Kusumawati & Setiawan, 2019),(Nurwahidah et al., 2019), (Widianingsih, 2018) (Susilawati & Rakhman, 2018) who assert that management ownership positively impacts corporate value.

The significant value of the capital structure displays the value 0.000>0.05 based on the outcome in the table above. Based on these findings, capital structure enhances business value. Therefore $H_3$ is accepted, implying that financial leverage affects firm value positively. The worth of the business will rise along with the capital structure. Because investors view debt as an indication that a company has potential future development prospects, this study shows that increasing debt usage is about enhancing a firm's value. The trade-off hypothesis, which claims that any additional debt would lower

a firm value if its capital structure is out of balance, supports this study. According to capital structure theory, there should not be any issues as long as the company can balance the benefits and drawbacks of debt. Thus, a large capital structure combined with effective management can boost profitability and initial returns. This outcome is having the past study determined by (Dahar et al., 2019), (Savitri & Irwansyah, 2021), and (Firnaliyanti et al., 2019), which demonstrates that capital structure affects firm value positively.

Based on the outcomes above, the significance value of profitability*IOS shows 0.849>0.05. These results conclude that the profitability*IOS variable has no impact on firm value. Therefore $H_4$ is rejected, meaning that IOS weakens The relationship between profitability and firm value. This finding contradicts the pecking order theory, which holds that enterprises with more significant profit margins have more internal financing sources. A high level of corporate profits can also allow management to allocate funds for high investments. This is caused by managers who prefer to invest in trading, so they pay less attention to other aspects, such as profitability. They look more at market conditions when buying or selling shares. This theory is inconsistent with research conducted (Kurniawan & Maemanah, 2020) which proves that IOS strengthens The relationship between profitability and corporate value. These outcomes, however, are consistent with previous research by (Haya, Andini, Nassau, Siregar, & Wulandari, 2022), who in their research said that IOS was unable to strengthen the link between corporate profitability and worth.

The table above shows the significant value of managerial ownership*IOS shows 0.270>0.05. According to these data, the variable management ownership*IOS does not influence the firm's worth. Therefore, $H_5$ is rejected, meaning that IOS weakens the relationship between profitability and firm value. This result rejects previous research conducted by Khairun (2018) and Andri and Dewi (2019), which stated that a high investment opportunity set (IOS) would strengthen the effect of managerial ownership on firm value. From the results obtained in this study, the agency theory of managerial share ownership cannot minimize agency problems because the interests of managers who hold firm shares differ from those of ordinary investors. The degree of management ownership cannot prevent agency interactions and cannot align the interests of managers and investors. Therefore, more than high management ownership is required to entice investors to invest and earn returns. The outcome of the investigation is helped by research examined by Chandra (2020).

The significant value of the capital structure*IOS indicates the number 0.000>0.05 based on the outcomes above. According to these findings, the variable capital structure*IOS significantly and negatively affects business value. Therefore, $H_6$ is accepted. In other words, the IOS variable can strengthen the connection between capital structure and firm value. The Pecking order hypothesis asserts that a company's growth potential influences its capital structure (Seftianne & Handayani, 2017). When the company grows, the company requires considerable capital. Growing companies will have more excellent opportunities to borrow funds. Therefore, the increase in capital in a company will align with the number of investment opportunities owned by the company. Companies with high growth opportunities and capabilities will have high investment opportunities, resulting in high funding requirements. The company's internal funds need to be increased (Herdinata (2019). Optimal capital structure arises because of the fulfilment of funds using debt. The best capital structure will boost business earnings and increase stock prices. This finding is consistent with an earlier study by Wayan (2019) and Suardhika (2017), which found that when a firm grows, its profitability increases and the company requires considerable capital. Growing companies will have more excellent opportunities to

borrow funds. As a result, a company's rise in capital will correspond to the number of investment opportunities it now has.

**Conclusion**

This research's objective was to ascertain if the investment opportunity set enhances both the direct and indirect impacts of Profitability, managerial Ownership, and capital structure on firm value. It is concluded from the data analysis results mentioned in the discussion that (1) profitability does not affect firm value, (2) managerial ownership has a positive effect on firm value, (3) capital structure has a positive effect on firm value, (4) IOS weakens the relationship between profitability on firm value, (5) IOS weakens the relationship between managerial ownership on firm value and (6) IOS strengthens the relationship between capital structure on firm value.

Based on the conclusions and limitations that exist, there are several suggestions addressed to parties related to research regarding the role of investment opportunity sets in moderating Profitability, managerial Ownership, and capital structure on firm value, namely: (1) Further research should increase the research period because in This research is only 4 (four) years, from 2018-2021 and only gets 15 companies as samples. (2) Investors are advised to study and examine all information related to managerial Ownership, ROA, and DER when investing in the company so that investors do not suffer losses and get maximum profits. (3) Future researchers can use other independent variables related to this research, it is hoped that such as independent commissioners and institutional ownership, so that they can form a research model that better explains the factors that influence firm value.

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