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Accounting Conservatism: The Effect of Investment Opportunity Set, Firm Size, and Debt Covenant

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Abstract— **This study aims to analyze the effect of investment opportunity set, firm size, and debt covenant on accounting conservatism in industrial sector companies in the Indonesian Stock Exchange. This research method uses a quantitative approach with an associative research form. Data collection was done through documentary studies in the form of secondary data. The population of this study consisted of 66 industrial sector companies on the Indonesian stock exchange from 2019 to 2023. The research sample was obtained through the purposive sampling method of 41 companies. The data analysis is a multiple linear regression analysis using SPSS version 26 as the data processing tool. The results showed that investment opportunity set and firm size have no effect on accounting conservatism. Meanwhile, debt covenants have a positive impact on accounting conservatism. This research suggests analyzing other factors that may affect conservatism, such as corporate governance, industry type, or economic conditions.**

Keywords— Accounting conservatism; Debt covenant; Firm size; Investment opportunity set

I. INTRODUCTION

Globalization triggers competition between business offenders, while business development is getting faster from time to time. Therefore various ways are done by companies in order to maintain themselves. Financial statements become an important element of a company in measuring company performance since they are described as good mirrors of a company's management in managing and optimizing company resources [1]. Financial statements are one of the media used to provide company information, especially financial information, to internal and external parties. Companies are obligated to report the results of financial statements every accounting period, especially those listed on the Indonesia Stock Exchange [2]. Companies should adhere to accounting standards and principles when preparing their financial statements.

The many cases of manipulation of financial statements that occur in large companies reflect a lack of understanding of accounting standards [3]. In Indonesia, PT Garuda Indonesia is one of the state-owned enterprises whose December 31, 2018 financial statements stated a net profit of USD 809.85 thousand. The presentation of these financial statements raises an oddity in reporting because, in the previous bookkeeping, PT Garuda Indonesia noted a loss of USD 216.5 million, a very sharp and significant jump. From the case of PT Garuda Indonesia, it is evident that the principle of accounting conservatism is still not widely applied in the presentation of financial statements.

Financial statements are regulated by Financial Accounting Standards, which allows the selection of accounting methods required in preparing financial statements following the needs and conditions of the company [4]. Flexibility in choosing accounting methods will affect the value that will be presented in the financial statements. Thus a company also needs to take anticipatory action in the face of economic instability by presenting financial statements carefully, called the principle of conservatism. When financial reports do not adhere to the principle of conservatism, it may lead to misinterpretation by those who rely on these financial statements. Accounting conservatism is a principle that applies prudence in presenting financial statements by minimizing cumulative earnings reporting and delaying revenue recognition, immediately recognizing costs, reducing asset valuations, and increasing liability measurements [5]. So indirectly, the principle of conservatism will affect financial statements [6].

Conservatism can be explained from the signaling theory perspective, which was first developed by Ross in 1977. According to signaling theory, a signal will result in a response. This includes stakeholder reactions related to financial conditions. Financial statement signaling refers to a move made by management of the company to give investors guidance regarding how the company's prospects will be managed going forward [7]. Signaling theory and accounting conservatism have a close relationship in the context of economic decision-making. Signaling theory refers to the concept that business entities use financial information to send signals to stakeholders about their performance and future prospects. These signals can affect stakeholders' perceptions of the business entity and influence investment, credit, and other decisions. There are several factors that can influence management to practice conservatism, including investment opportunity set, firm size, and debt covenant.

The group of assets that a firm owns that represents future investment prospects is known as the Investment Opportunity Set (IOS). According to [8], the IOS level of a company has a substantial influence on its value. The company's value increases proportionally with its higher IOS value. The stock market value often exceeds the book value when the company has many attractive investment opportunities. This occurrence is demonstrated by the ratio between the stock market price and the book value of the company. Within this context, companies tend to exhibit greater accounting conservatism. The research conducted by [9], [2] state that investment opportunity set positively affects accounting conservatism. Businesses that have a lot of opportunities for investments are more likely to use the principle of conservatism when compiling their financial statements in order to account for potential risks in the future. Nevertheless, the findings of this study do not support those of previous studies [10], which claims that accounting conservatism is not impacted by the investing opportunity set. In this study, the following hypothesis is:

H1: Investment opportunity set has a positive effect on accounting conservatism.

Firm Size is a description of a company's size aimed at total assets, total sales, average sales, and total assets [11]. It is mainly divided into to two group, namely large companies and small companies. Companies classified as large have a more complex system and higher profits than the smaller company category, therefore they are also face greater risks. Due to their significant political expenses, large corporations also frequently employ conservative accounting practices to lower their political costs. [12]. According to the results of research [13], [14] state that firm size affects accounting conservatism. Nevertheless, the findings of this study do not support those of previous studies [15], which claims that accounting conservatism is not impacted by the firm size. In this study, the following hypothesis is:

H2: Firm size has a positive effect on accounting conservatism.

Debt Covenant is an agreement used to protect lenders from manager actions that can harm creditors. A high level of debt will make the company more careful because a high level of debt is a threat to the survival of the company. The level of leverage affects the level of accounting conservatism; this is because creditors have the right to know and supervise the company's operational activities. If the company has a high enough debt value in such a situation, the information asymmetry that occurs between creditors and management is reduced, and managers cannot report the value of earnings in overstatement, at last debt covenants have a good impact on accounting conservatism [16]. These results are in accordance with research [17] state that debt covenant have a positive effect on accounting conservatism. However, the results of this research are not in line with the research [15], which states that debt covenant has no effect on accounting conservatism. In this study, the following hypothesis is:

H3: Debt covenant has a positive effect on accounting conservatism.

II. RESEARCH METHODS

The study employed associative research which the objective is to ascertain the impact between several variables, namely investment opportunity set, firm size, and debt covenant, on accounting conservatism. The selected research object is the industrial sector of the Indonesia Stock Exchange. Data collection using documentary studies in the form of secondary data. This study's population comprised 66 companies. The sample was selected using purposive sampling, with two main criteria. First, the companies must have completed their Initial Public Offerings (IPOs) prior to 2019. Second, the companies must have consistently published annual reports for five consecutive years, from 2019 through 2023. The obtained sample amounted to 41 companies.

The research variables used in this study are investment opportunity set, firm size, and debt covenant as independent variables and accounting conservatism as the dependent variable:

Accounting conservatism

When a loss occurs, the entire loss will be recognized immediately even though it has not been realized. Still, when profits occur, then profits that have not been unrealized gains will not be recognized [18] with the calculation formula as follows:

$$\text{CON ACC} = \frac{(\text{NIO + DEP - CFO})}{\text{TA}} \ \text{X-1} \tag{1}$$

Description:
CONACC = Earning conservatism based on accrued items
NIO = Operating profit of current year
DEP = Depreciation of fixed assets of the current year
CFO = Net amount of cash flow from operating activities of the current year
TA = Book value of closing total assets

Investment opportunity set

Investment opportunity set (IOS) relates to expenditures incurred now and in the future to generate firm value due to investment decisions [19]. The measurement used for IOS in this research is MVBVA, written in the following formula [20].

$$\text{MVBVA} = \frac{\text{Total Asset - Total Equity + (Number of outstanding shares x Closing price)}}{\text{Total Asset}} \tag{2}$$

Firm size

Firm size is a size scale seen from the total assets which the company's owned [21]. The greater the total assets owned by the company, the greater the size of the company. Research on this variable is measured by the logarithm of total assets, in accordance with the research of [22]. The firm size variable is proxied using the formula as follows:

$$\text{Firm Size} = \log \text{normal (total asset)} \tag{3}$$

Debt covenant

Debt covenants are agreements that aim to protect lenders from manager actions against the interests of creditors. Examples include additional borrowing, excessive dividend payments, or keeping equity below a predetermined level [23]. Debt covenant is proxied by leverage, which means the comparison between total company debt with total company assets and is calculated by:

$$\text{Debt to asset ratio} = \frac{\text{Total Debt}}{\text{Total Asset}} \tag{4}$$

The data analysis is a multiple linear regression analysis using SPSS version 26 as the data processing tool, with the following equation.

$$Y=\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \tag{5}$$

Y : Accounting Conservatism
α : Constant
β_{1-3} : Coefficient beta
X_1 : Investment Opportunity Set
X_2 : Firm Size
X_3 : Debt Covenant
e : Error term

III. RESULT AND DISCUSSION

Descriptive Statistical Analysis

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
IOS	205	.36	17.32	1.4607	1.83715
FIRM SIZE	205	12.74	29.58	25.1084	4.64592
DEBT COVENANT	205	.07	2.76	.5704	.49212
ACC CON	205	-.54	.72	.0083	.13929
Valid N (listwise)	205				

Source: processed data (2024)

Based on the descriptive statistic table of 205 data. It shows that the investment opportunity set (X1) has a minimum value (0,36), maximum (17,32), average (1,4607), and standard deviation (1,83715). The firm size (X2) shows that the minimum value is (12,74), maximum (29,58), average (0,5704), and standard deviation (4,64592). The debt covenant shows the minimum value is (0,07), maximum (2,76), average (0,5704), and standard deviation (0,49212). The accounting conservatism as a variable (Y) shows that the minimum value is (-0,54), maximum (0,72), average (0,0083), and standard deviation (0,13929).

Multiple Linear Regression Analysis

Table 2. Multiple Linear Regression Analysis

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	-.050	.056		-.892	.374
	IOS	-.001	.006	-.012	-.155	.877
	FIRM SIZE	.001	.002	.021	.307	.759
	DEBT COVENANT	.076	.023	.267	3.355	.001

Source: processed data (2024)

The multiple regression equation based on the results of data processing using SPSS is as follows:

$$Y = - 0.050 - 0.001X_1 + 0.001X_2 + 0.076X_3 \qquad (6)$$

The regression equation formed above shows that the constant of -0.050 states that if the independent variables, namely investment opportunity set, firm size, and debt covenant, are considered constant, then the value of conservatism in the company is -0.050. The coefficient of the investment opportunity set variable is -0.001, meaning that when the investment opportunity set increases by 1, the company's conservatism condition will decrease by -0.001. The coefficient of the firm size variable is 0.001, meaning that when the firm size increases by 1, the condition of accounting conservatism in the company will increase by 0.001. The coefficient of the debt covenant variable is 0.076, meaning that when the debt covenant increases by 1, the condition of accounting conservatism in the company will increase by 0.076.

Determination coefficient test result

Table 3. Determination Coefficient Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.259[a]	.067	.053	.13554

Source: processed data (2024)

The coefficient of determination results show that the adjusted R square value of 0.618 indicates that the independent variables in the study can account for 6.7% of the dependent variable, with the remaining 93.3% being explained by other variables not included in the study.

F Test Result

Table 4. F Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.265	3	.088	4.818	.003[b]
	Residual	3.692	201	.018		
	Total	3.958	204			

Source: processed data (2024)

The f test result obtained an F-count of 4.818 with a significant value of 0.003 so that sig. F is smaller than 0.05 (0.003<0.05). This means that the investment opportunity set, firm size, and debt covenant together have an impact on accounting conservatism.

T Test Result

Table 5. T Test

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.050	.056		-.892	.374
	IOS	-.001	.006	-.012	-.155	.877
	FIRM SIZE	.001	.002	.021	.307	.759
	DEBT COVENANT	.076	.023	.267	3.355	.001

Source: processed data (2024)

The first hypothesis states that investment opportunity set significantly affects accounting conservatism. The test results obtained a significance value of 0.877 > 0.05. This means that the investment opportunity set variable has no effect on accounting conservatism, so it is concluded that the hypothesis is rejected. This situation arises when companies with high Investment Opportunity Sets (IOS) experience pressure to meet profit targets expected by investors. As a result, these companies may be compelled to adopt less conservative accounting methods. This leads to companies prioritizing the reporting of high profits over implementing ethical and responsible accounting practices. Thus, the company will report the best financial results without considering the principle of accounting conservatism. This assertion is backed by studies indicating that an investment opportunity set does not significantly impact to accounting conservatism [24], [10]. Nevertheless, the findings of this study are in contradiction with those of previous research [8], [9], which states that investment opportunity set has a significant positive effect on accounting conservatism.

The second hypothesis states that firm size significantly affects accounting conservatism. The test results obtained a significance value of 0.759 > 0.05. This means that the firm size variable has no effect on accounting conservatism, so it is concluded that the hypothesis is rejected. The data results show that if the percentage of firm size increases every year, it is not followed by an increase in the rate of accounting conservatism. This statement is supported by research with results that state that firm size has no significant effect on accounting conservatism [15], [22]. This happens because large companies want to show good financial performance by presenting optimistic earnings in the financial statements to third parties. However, this study's results differ from the research [13], [14], where firm size has a significant positive effect on accounting conservatism.

The third hypothesis states that debt covenant significantly affects accounting conservatism. The test results obtained a significance value of 0.001 < 0.05. This means that the debt covenant variable affects accounting conservatism, so it is concluded that the hypothesis is accepted. The degree of a company's leverage influences its adherence to accounting conservatism principles. This relationship exists because creditors are entitled to information about and oversight of the company's operations. In scenarios where a company carries a substantial debt load, the information asymmetry between creditors and management is reduced, and managers cannot report the value of earnings in overstatement. Thus, debt covenants have a good impact on accounting conservatism. According to the results of research [25], [17] also states that debt covenants positively and significantly affect accounting conservatism. However, this study's results differ from the research [16], which states that debt covenant has a negative effect on accounting conservatism, while the research results [15] state that debt covenant does not affect accounting conservatism.

IV. CONCLUSION

This study examines the impact of the investment opportunity set, firm size, and debt covenant on accounting conservatism. This study focused on companies within the industrial sector that were listed on the Indonesia Stock Exchange (IDX) over a five-year period, spanning from 2019 to 2023. Based on the research conducted, it can be concluded that the investment opportunity set and firm size do not significantly affect accounting conservatism in companies. Conversely, debt covenants have a significant influence on accounting conservatism. Investment opportunity set and firm size may not be the main consideration in management decisions related to applying accounting conservatism. Companies may be more likely to use other considerations in determining their level of accounting conservatism, such as more specific industry or strategic factors. Furthermore, companies also tend to adopt more conservative accounting practices when debt covenant agreements bind them. This may be due to the need for companies to comply with the terms set out in the debt covenant, which may encourage them to adopt more conservative accounting policies to minimize the risk of a covenant breach. This finding is important as it provides new insights into the factors influencing accounting conservatism. This can assist companies in designing more appropriate accounting policies and serve as a foundation for further research in this area. Based on these findings, further research is needed to explore other factors that may affect accounting conservatism. In addition, research can also be focused on the impact of accounting conservatism on firm performance and investment decisions. Thus, further research can provide a more comprehensive understanding of the function of accounting conservatism in the business and financial context. The practical suggestion from this study is for companies to pay more attention to the implications of debt covenants on their accounting conservatism. This may involve re-evaluating existing accounting policies and necessary adjustments to meet the debt covenant requirements.

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