Economics and Business Quarterly Reviews

The Asian Institute of Research *Economics and Business Quarterly Reviews* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Economics and Business, which includes, but is not limited to, Business Economics (Micro and Macro), Finance, Management, Marketing, Business Law, Entrepreneurship, Behavioral and Health Economics, Government Taxation and Regulations, Financial Markets, International Economics, Investment, and Economic Development. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Economics and Business Quarterly Reviews* aims to facilitate scholarly work on recent theoretical and practical aspects of Economics and Business.

Directors Gender Diversity, Company Size, Sales Growth against Financial Pressure with Intellectual Capital as Moderation

Masno[1], Supratikta[2], Florentina Raines[3]

[1] Postgraduate Lecturer of Master of Management at Pamulang University. Banten. Indonesian Lecturer at the Faculty of Economics and Business UIN Syarif Hidayatullah Jakarta. Indonesian
Email: dosen00124@unpam.ac.id; masnomarjohan@yahoo.co.id
[2] Postgraduate Lecturer of Master of Management at Pamulang University Banten. Indonesian
Email: hadisupratikta@gmail.com
[3] Master of Management Student of Pamulang University. Banten. Indonesian.
Email: florentinaraines@gmail.com

Abstract

This research aims to analyze the factors that can influence financial distress. This study is a quantitative research as it explains the influence between variables through hypothesis testing. The research uses secondary data obtained from financial reports and annual reports with the research population being property and real estate companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2022. The sampling method used in this research is purposive sampling. The sample that met the criteria was 38 companies. The data analysis method used in this research is quantitative data analysis using the Eviews program to process data using panel data regression analysis. The results show that gender diversity and sales growth have a significant influence on financial distress, while firm size does not have a significant influence. Intellectual capital can moderate the influence of gender diversity on financial distress, but it cannot moderate the influence of firm size and sales growth on financial distress. Based on the results of this research, it is expected that company management pays attention to the proportion of gender diversity in top-level management. Additionally, sales growth should be accompanied by increased profits, meaning that the company can effectively manage its burdens.

Keywords: Financial Distress, Gender diversity, Intellectual Capital, Sales Growth, Intellectual Capital

1. Introduction

The property, real estate, and construction sectors play a crucial role in the economy and development of Indonesia. This sector is also one of the indicators to assess the economic progress of a country. The property and real estate sector is a large sector that can absorb a significant amount of workforce and has a ripple effect on other sectors of the economy. The growth of the property and real estate sector will always attract the interest of investors because land and building prices tend to increase. It can be seen that this sector contributes significantly to the

Indonesian economy. Due to the increasing demand for housing, apartments, hotels, and shopping centers, property development is booming in Indonesia, both in urban and rural areas.

The COVID-19 pandemic has had a major impact on the property and real estate sector, causing a decline in its financial performance. Some of the impacts of the domestic financial crisis include companies facing financial crises (Pawitri & Alteza, 2020). Moreover, the financial crisis can reduce investor confidence in businesses, making it difficult for companies to obtain the necessary funds to operate.
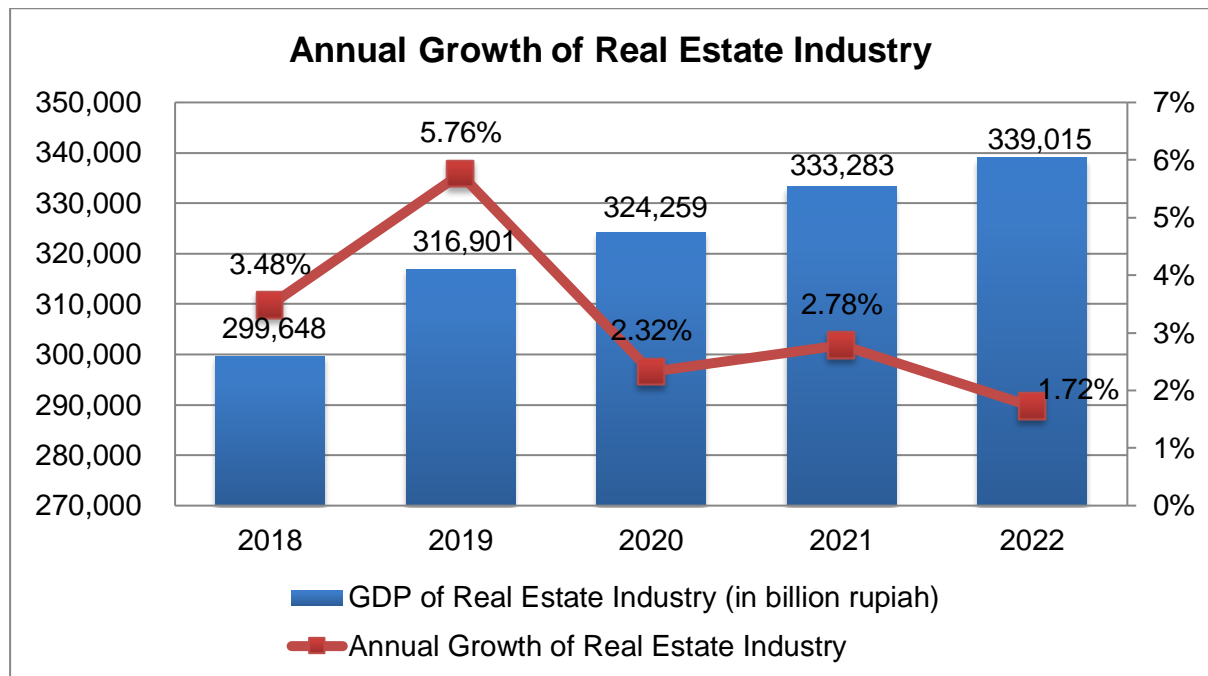
Picture 1.1: Trend Data of Real Estate Industry Growth
Source: Data Industri Research

The graph above shows the growth trend of the real estate and property industry, which has experienced fluctuating conditions from 2018 to 2022. From 2018 to 2022, the GDP of the real estate industry experienced an increase, but the industry growth has declined since 2019 to 2022. This is due to the increase in GDP of the industry caused by the rising property prices, but high property prices can hinder the long-term growth of this sector as it can decrease the demand for properties. Sometimes, large projects or new developments can boost the GDP of the property industry in the short term, but at the same time, if there is a decrease in demand in the market, long-term growth can be disrupted. Changes in consumer preferences for specific types of properties or specific locations can affect the growth of the property industry. If consumers prefer different types of properties or locations, the demand for certain types of properties or in certain locations may decrease even though the overall GDP is increasing. In 2019, the real estate and property industry experienced growth. This increase was due to several factors, including the increase in demand in the hotel and convention hall segments. The increase in meetings and various events held by the government and multinational companies in the third quarter of 2019. Furthermore, the demand for hotels also increased in tourist areas such as Bandung and Denpasar (PPKOM Bank Indonesia, 2019). However, in 2020, there was a drastic decrease. This was due to the COVID-19 pandemic that hit Indonesia and the world, which also had a significant impact on the property sector, where property sales decreased significantly in 2020. In 2021, there was a slight increase, but not significant, as it was still in the recovery phase, and there was another decline in 2022.

2. Literature Review

2.1. Agency Theory

In agency theory, the party referred to as the principal is the investors and shareholders, while the management of the company is referred to as the agent (Kartika et al., 2020). This separation of interests can lead to conflicts because there are contracts applied between the principal who uses the agent to carry out a service activity (Nilasari, 2021). A manager has authority and rights in decision-making after being delegated by the owner as the principal. The agency relationship becomes problematic when the agent and principal have different goals. If the agent and principal try to dominate each other's roles and have different objectives, then the principal can no longer dominate the agent. Agency conflicts can be reduced by implementing monitoring mechanisms that align the interests of the manager with the owner. One monitoring mechanism that can be implemented is by requiring the manager to provide regular reports to the owner, such as financial reports and annual reports (Yuliani & Rahmatiasari, 2021). The condition of financial distress can be described as the inability or incapacity of the company to make timely debt payments.

Based on several theories of agency, this is expected to serve as a tool to reassure investors who will receive returns on their investments in the future. However, with the presence of financial reports showing poor results or earnings, it can create a situation or condition of financial distress.

2.2. Signalling Theory

Signalling theory is an important aspect in investor decision making. This is because the information provided by the company is a collection of important data that provides a record and overview of the company's past, present, and future. There are many pieces of information from the company that can be considered as signals. This information can be found in the annual report. The information contained in the annual report includes information about the company's activities, such as financial reports, as well as non-financial information that is not related to financial reports. Financial reports are created based on the activities that occur in the company during a specific period of time. Through financial reports, we can determine whether the company is in a healthy condition or experiencing financial distress. A healthy company is indicated by consistent profitability over a long period of time. Additionally, the company's cash flow can also provide insights. A high and consistent cash flow indicates that the company is able to pay its debts to creditors (Agustini & Wirawati, 2019).

2.3. Financial Distress

Financial distress is a condition where a company faces financial difficulties before it goes bankrupt. According to Nabawi and Efendi (2020), financial distress occurs because the company is unable to manage and maintain the financial performance stability, starting from the failure to promote its products, which results in a decrease in sales. As a result, with reduced income from minimal sales, the company may experience operational losses and net losses for the current year. Furthermore, these losses can lead to a capital deficiency due to a decrease in retained earnings used to pay dividends, causing an overall equity deficiency. If this continues, it is not impossible for the company's total liabilities to exceed its total assets. According to Drescher (2014:25) in Sudirgo et al., (2019), financial distress is the final stage of a liquidity crisis and potentially includes the bankruptcy phase, meaning that the company is having difficulty meeting its obligations to creditors. From a broader perspective, financial distress can be identified when a company's economic conditions deteriorate and even violate agreements with creditors, resulting in defaults (legal actions). Financial distress can cause a company to fail to make payments according to existing contractual agreements. Other impacts of financial distress include negative effects on the company's costs, such as tax loss carryforwards due to increased debt. Moreover, the relationships with customers, suppliers, employees, and creditors become strained due to doubts about the company's future existence. In 1984, Altman conducted a further research in various countries using different non-publicly traded manufacturing companies. This formula was then found to be more suitable for manufacturing companies that do not sell their shares on the Stock Exchange (Rudianto, 2013:256). The research resulted in a second Z-score formula for non-

publicly traded manufacturing companies, and this modified discriminant function by Altman can be formulated as follows (Qalbiyani et al., 2022):

$$Z = 0{,}717X1 + 0{,}847X2 + 3{,}107X3 + 0{,}420X4 + 0{,}998X5$$

X1 = Working Capital / Total Assets
X2 = Retained Earning / Total Assets
X3 = EBIT / Total Assets
X4 = Book Value of Equity / Book Value of Total Liabilities
X5 = Sales / Total Assets

2.4. Gender Diversity

Gender diversity is the diversity of genders where women and men have equal rights and responsibilities to occupy top management positions (Raharjanti, 2019). Gender diversity in a company is expected to provide positive effects such as innovation, creativity, and different perspectives (Samudra, 2021). Gender diversity is related to the characteristics of executives in decision-making. Executives are generally classified into two types: risk-averse executives and risk-taking executives (Safitri et al., 2021). Risk-averse executives tend to avoid risks and prefer safe and conservative decision-making, while risk-taking executives are more open to taking risks and new opportunities. Women are considered to be more cautious and risk-averse compared to men. This can be a reason why policies made by women in the board of directors are more targeted and can reduce risks (Pramesti, 2022).

Gender diversity is also related to agency theory, which involves overseeing every decision made by the board of directors, ultimately leading to the financial performance of the company. Women on the board of commissioners, who are seen as more cautious, meticulous, and attentive to risks, are expected to apply these qualities in overseeing the organization, thereby minimizing factors that could lead the company to financial distress. In this study, gender diversity is measured by comparing the number of female directors to the total number of directors in a company (Samudra, 2021). This can be represented by the formula:

$$Gender\ Diversity\ = \frac{Number\ of\ women\ in\ the\ board\ of\ directors}{Total\ number\ of\ directors}$$

2.5. Firm Size

Firm size or company size is a scale that can describe the magnitude of a company (Rachmawati, 2020). Companies can be classified as large or small in various ways, such as by calculating total assets, total sales, or market capitalization (Agustia & Suryani, 2018).

Company size can also be understood as a comparison of the magnitude of an object. Company size can be assessed in several ways. Company size can be based on total assets, total revenue, market capitalization, number of employees, and so on. Basically, company size is divided into four categories: large firms, medium firms, small firms, and micro firms (Khamisah et al., 2020). Therefore, it can be concluded that company size is an indicator that can indicate the status or characteristics of an organization or company, where several parameters can be used to determine the size (large and small) of a company, such as the number of employees employed by the company to carry out its operations, total assets owned by the company, total sales of the company during a certain period of time, and the number of shares outstanding. Large companies tend to attract the attention of the general public, which will later attract investors to invest their capital. Thus, large companies tend to maintain stability and the condition of the company.

In this study, firm size is measured using total assets, as it is more stable and representative in explaining the size of the company. The researcher calculates firm size referring to the study conducted by Khamisah et al., 2020, using the natural logarithm value of total assets.

Firm size = Ln (Total Aset)

2.6. Sales Growth

Sales growth is the increase or decrease in the value of a company's sales. According to Prasetya and Oktavianna (2021), sales growth is a ratio that depicts the increase in a company's sales over time. Therefore, sales growth can be used as a prediction for future sales growth. According to Rochendi and Nuryaman (2022), sales growth is a significant measure of growth, where an increase in sales growth indicates that the company can operate and achieve its targets because the company's sales increase over time. Thus, a high level of sales growth can be an indication of a successful company in their sales activities. Sales growth or the growth of sales is defined by Sinambela and Nur'aini (2021) as a benchmark for evaluating a company's performance based on profit acquisition in the company's financial statements from year to year. The growth of sales from year to year can serve as a basis for predicting the company's sales level in the future. Sinambela and Nur'aini (2021) also added that a high value of sales growth is evidence of a company's success in managing its operations, assets, and sales strategies. If the value of sales growth is higher, it can be interpreted that a company is successful in implementing its marketing and sales strategies. According to Agustini and Wirawati (2019), high sales growth indicates that the company's financial condition is relatively stable and avoids financial distress. Harahap (2013:39) in Putri (2019) formulated sales growth as follows:

$$Sales\ Growth = \frac{Sales\ t - Sales\ t-1}{Sales\ t-1}$$

The sales used is net sales, not gross sales, because gross sales may have deductions due to discounts and sales returns.

2.7. Intellectual Capital

According to Silalahi (2021) in Khoirony and Nazar (2023), intellectual capital is an intangible asset consisting of information and knowledge, and plays a crucial role in enhancing competitive ability and company performance. Intellectual capital is closely related to innovation, knowledge, and technology. When a company faces operational problems, employees and management will work together to find solutions to effectively manage the company and avoid financial distress. Each company has different components of intellectual capital, influenced by the values and culture unique to each company. These components can create value added for a company.

Intellectual capital is also related to signal theory, where in this case, it can act as a signal given by the company to stakeholders. Companies with strong intellectual capital can use this as a positive signal to stakeholders that the company possesses valuable resources and competencies, thereby increasing trust and confidence in the company. The Value-added Intellectual Capital Coefficient is measured by calculating the value added in three components of Intellectual Capital, namely Human Capital, Capital Employed, and Structural Capital, with the following calculation (Suzan & Rini, 2022) :

$$VAIC^{TM} = VACA + VAHU + STVA$$

VACA = Value Added Capital Employed
VAHU = Value Added Human Capital
STVA = Structural Capital Value Added

3. Hypothesis Development

3.1. The Influence of Gender Diversity on Financial Distress

The board of directors in a company is an important element and a key component in monitoring the company's performance (Indarti et al., 2021). The presence of a board of commissioners in a company is expected to reduce the occurrence of agency problems between shareholders as owners of the company and the board of directors as managers. The influence of gender diversity on financial distress is a research topic that examines how the presence of women in decision-making positions in a company can affect the level of financial difficulty or financial distress experienced by the company. The presence of women on the board of directors or in company management can bring different perspectives and experiences. This can result in more diverse and holistic decision-making, which

in turn can help identify and address financial problems before they develop into crises. A more diverse board of directors in terms of gender can bring more careful assessments of company performance. This can help identify financial problems earlier and take necessary corrective actions. Therefore, the more women there are in the board of directors, the smaller the chances of the company experiencing financial distress. Some previous empirical evidence, such as the research by Samudra (2021), Rodiah and Kristanti (2021), and Ramadanty and Khomsiyah, states that gender diversity has a significant influence on the condition of financial distress. However, these research results contradict some studies conducted by Nathania and Vitariamettawati (2022), Aldama and Kristanti (2022), and Mondayri & Tresnajaya (2022), which state that gender diversity does not affect financial distress. Therefore, based on this description, the first hypothesis can be formulated as follows:

H1: Gender diversity is suspected to have a significant influence on financial distress.

3.2. The Influence of Firm Size on Financial Distress

Widiastari and Yasa (2018) stated that firm size is a scale in which the size of a company can be classified by measuring it through total assets, total sales, stock value, and others. The size of a company can be seen from the magnitude of the assets owned by the company. Companies with large total assets indicate that the company has reached a level of maturity, where at this level the company's cash flow is already positive and is considered to have good prospects in a relatively long period. Therefore, the possibility of financial distress in large companies is smaller. If associated with signaling theory, large companies tend to have more resources and capabilities compared to small companies. The size of the company itself can be a strong signal to stakeholders that the company has financial stability and the ability to survive in a competitive industry. Large size can also give the impression of credibility to customers or investors because they believe that a business has passed the initial stage of development and has successfully built a reputation in the market. In addition, large companies often have easier access to additional capital from financial institutions and the ability to attract high-quality prospective employees. This can be a signal to the market that the company has the ability to develop business and obtain greater profits. Several previous empirical evidence, such as the research by Gaos and Mudjiyanti (2021), Aji and Anwar (2022), and Bernardin and Indriani (2020), state that firm size has a significant influence on the condition of financial distress. However, other research conducted by Saputra and Salim (2020), Aldama and Kristanti (2022), and Muslimin and Bahri (2022) contradicts their results where their research states that firm size does not affect the condition of financial distress. Firm size is an important point or outline of a company's resources. Large companies usually have a large book value and have large transaction developments, resulting in large profits. Therefore, based on this description, the second hypothesis can be formulated as follows:

H2: Firm size is suspected to have a significant influence on financial distress.

3.3. The Influence of Sales Growth on Financial Distress

Sales growth or sales growth ratio is a ratio used to predict future growth (Wibowo & Susetyo, 2020). Year-on-year sales growth can be used as a basis for predicting a company's sales level in the future. Sinambela and Nur'aini (2021) also added that high sales growth is evidence of a company's success in managing its operations, assets, and sales strategies. Increasing sales growth indicates that the company is able to execute its strategies to achieve its goals because the sales percentage shows an increase. This can be a signal to external parties as the level of business sales growth continues to increase, resulting in maximum and stable profits, ultimately avoiding financial difficulties for the company. Several previous empirical studies by Nathania and Vitariamettawati (2022), Muslimin and Bahri (2022), Purwanti and Syarif (2022), and Mulyatiningsih and Atiningsih (2021) stated that sales growth has a significant influence on financial distress. With high sales, the company's profit will also be high, reducing the likelihood of the company experiencing financial distress. But if the company's sales growth decreases, it will increase the company's chances of entering a financial distress condition because the profit from sales decreases, resulting in financial difficulties for the company. However, these findings contradict the research by Saputra and Salim (2020), Aji and Anwar (2022), and Prasetya and Oktavianna (2021), which stated that sales growth does not affect the financial distress condition. Therefore, based on this description, the third hypothesis can be formulated as follows:

H3: Sales growth is expected to have a significant influence on financial distress.

3.4. The Influence of Gender Diversity, Firm Size, and Sales Growth on Financial Distress

Based on the previous description, it has been explained that leverage ratio, firm size, and sales growth each have their roles in financial distress conditions. The higher a company's leverage ratio (relatively high debt level), the greater the risk of financial distress. This is because the more debt that needs to be paid off, the greater the pressure on cash flow if revenue decreases or costs increase. Companies with high leverage ratios will be more vulnerable to difficulties in paying off their debts on time, which can cause serious financial problems. Large-sized companies tend to have better access to financial resources such as bank loans or creditors, venture capital, or bond issuance. Thus, they may have more options to obtain additional funds in difficult situations and avoid financial distress. Sales growth means that a company's revenue will continue to increase. With higher revenue, the company has a source of funds to cover operational costs and financial obligations such as debt and interest payments. Based on previous research conducted by Nathania and Vitariamettawati (2022), it is stated that gender diversity, sales growth, and intellectual capital together (simultaneously) have an effect on financial distress. The research findings of Prasetya & Oktavianna (2021) also show that sales growth and intellectual capital simultaneously affect financial distress. Aji and Anwar (2022) state that firm size and sales growth together have an effect on financial distress. However, this research contradicts the findings of Saputra and Salim (2020), where their research findings state that firm size and sales growth simultaneously do not affect financial distress. Based on the description that has been explained, the fourth hypothesis is as follows:
H4: Gender diversity, firm size, and sales growth simultaneously have a significant influence on financial distress conditions.

3.5. The Influence of Intellectual Capital Interaction With Gender Diversity on Financial Distress

Intellectual capital is an intangible asset consisting of information and knowledge, and plays a crucial role in enhancing competitiveness and company performance (Khoirony & Nazar, 2023). In this context, it is expected that managers can optimize intellectual capital because it provides benefits and contributions that impact company profitability. Effective utilization and contribution of intellectual capital can create additional value that enhances financial performance (Kurniawati et al., 2020). Companies that can manage and utilize intellectual capital better tend to have positive financial performance as they can create value added and maintain competitive advantage. The advantage of intellectual capital reflected in high VAICTM value is believed to have a significant impact on company financial performance. The higher the intellectual capital performance, the higher the financial performance (Ulum, 2022:23). In the context of intellectual capital, the presence of gender diversity in management teams can generate innovative and creative thinking, enrich knowledge and expertise in the company. The combination of ideas, experiences, and knowledge from various gender backgrounds can produce diverse perspectives that are more adaptive and responsive to environmental changes. With good interaction between intellectual capital and gender diversity, organizations can generate better and different solutions than before, leading to overall performance improvement. This can enhance competitiveness, create added value for the organization, and help the company face challenges and reduce financial distress. According to previous research, intellectual capital directly has a significant influence on financial distress. Research by Nathania and Vitariamettawati (2022) and Mulyatiningsih and Atiningsih (2021) states that intellectual capital has a significant negative effect on financial distress. This means that the higher the intellectual capital value, the lower the likelihood of the company experiencing financial distress. The presence of female directors can bring different norms, perspectives, values, and understanding (Mahdalia & Ghozali, 2023). Women often have better understanding and sensitivity to specific markets and customers, which can help companies develop products and services that are more suitable for market needs. In line with the research by Mokoginta and Agung (2022), women are suitable for providing supervision to management, especially risk management. This suitability is based on their meticulous and conservative attitude, which can prevent actions that go against the interests of shareholders. Thus, management does not take reckless actions that could lead to financial distress.
H5: Intellectual capital can strengthen the influence of gender diversity on financial distress.

3.6. The Influence of Intellectual Capital Interaction With Firm Size on Financial Distress

The size of the company can also influence the company's ability to manage intellectual capital and face financial distress. Larger companies tend to have greater resources and capabilities to manage their intellectual capital. They may have more budget for investment in the development and utilization of intellectual capital. This provides a competitive advantage and allows companies to invest in further innovation. For example, large companies with patents and intellectual property rights can use them as resources to protect their innovation from competition. In addition, large companies with strong intellectual capital may have better access to financial resources, such as loans or equity investments, which can be used to overcome financial distress if it occurs. Therefore, larger companies are expected to have an advantage in facing financial distress. According to research by Saputra (2020), company size has a significant influence on intellectual capital disclosure, where the larger the company size, the higher the demand for information transparency compared to smaller companies. Companies strive to demonstrate that they have implemented good corporate management principles by providing more detailed information. By providing more complete and transparent information, companies aim to gain trust and confidence from their stakeholders. This can help companies in facing financial distress conditions, as stakeholders are more likely or have the opportunity to provide additional financial support, debt restructuring, or other business agreements. However, this contradicts the research by Utami and Agustin (2020) which states that the size of a company does not affect the disclosure of intellectual capital because companies may limit the disclosure of intellectual capital to avoid signaling to competitors. In this case, if a company has employees with high innovative skills and expertise, competing companies may be interested in recruiting them with higher salaries.
H6: Intellectual capital can strengthen the influence of firm size on financial distress.

3.7. The Influence of Intellectual Capital Interaction With Sales Growth on Financial Distress

Intellectual capital can also help companies improve operational efficiency. The knowledge and expertise possessed by employees can be used to optimize business processes, reduce production costs, and increase productivity. Company employees with in-depth knowledge of the products or services offered can identify new market opportunities, better cope with competition, and develop targeted marketing strategies. In addition, the use of existing skills and experience in the team can also help build good relationships with customers. having an advantage in strong relationships with customers and business partners can be used for market expansion and business diversification. These good relationships can make it easier for companies to introduce new products or expand their existing market reach and can increase sales. Companies with stable or increasing sales growth tend to have better cash flow, higher profits, and the ability to finance their operations, thereby reducing the risk of financial distress. Higher sales growth indicates that the company has been successful in leveraging its intellectual capital to create added value for customers and maintain market share.
H7: Intellectual capital can strengthen the influence of sales growth on financial distress. 😄

4. Methods

The research is conducted with the intention and purpose of testing the hypothesis regarding the impact of independent variables, namely gender diversity, firm size, sales growth, on the dependent variable of financial distress, as well as the moderation of intellectual capital. The research uses quantitative data in the form of secondary data obtained from the website www.idx.co.id and the official website of the company. Since the data collection for the research is obtained through a third party, it is considered as secondary data. The unit of analysis for the research is property and real estate companies listed on the Indonesia Stock Exchange (IDX). The research utilizes data pooling (panel pooled data), which is a combination of cross-section and time series data from 2018 to 2022. The data source is taken from the annual reports and financial statements of property and real estate companies listed on the IDX from 2018 to 2022.

4.1. Population and Research Sample

The population used in the research consists of all property and real estate companies registered on the IDX from 2018 to 2022. The research utilizes secondary data, which includes financial reports and sustainability reports of property and real estate companies obtained from their official websites and the IDX.

The research uses purposive sampling as the method. The following criteria are used for selecting the sample for the research:

1. Property and real estate companies that are consistently listed on the Indonesia Stock Exchange (IDX) during the period from 2018 to 2022.
2. Property and real estate companies that consistently publish financial reports and annual reports from 2018 to 2022.
3. Companies that provide the necessary information regarding the research variables during the period from 2018 to 2022.
4. Companies that do not have outlier data.

4.2. Types and Data Sources

The research utilizes quantitative data in the form of secondary data generated through the website www.idx.co.id and the official websites of the companies. Since the data for this research is obtained from a third party, it is considered secondary data.

4.3. Data Collection Method

The research uses the documentation method for data collection. The documentation method involves tracing and analyzing the selected company's annual reports and financial statements.

4.4. Data Analysis Method

This research utilizes panel data, which is a combination of cross-sectional and time series data.

5. Result and Discussion

5.1. Descriptive Statistics

Table 1: Descriptive Statistics

	FD	GD	FZ	SG	VAIC
Mean	3.590947	0.183158	2225.816	0.145895	2.987789
Median	3.360000	0.170000	2258.500	0.010000	2.040000
Maximum	28.72000	0.670000	2490.000	7.530000	50.99000
Minimum	-3.330000	0.000000	1794.000	-0.930000	-22.70000
Std. Dev.	3.459139	0.176969	156.9111	0.836053	7.020901
Skewness	3.111141	0.577598	-0.512951	4.878209	3.265796
Kurtosis	22.62532	2.346029	2.685048	37.22001	23.39142
Jarque-Bera	3355.638	13.95039	9.117398	10024.06	3629.567
Probability	0.000000	0.000935	0.010476	0.000000	0.000000
Sum	682.2800	34.80000	422905.0	27.72000	567.6800
Sum Sq. Dev.	2261.506	5.919105	4653387.	132.1082	9316.387
Observations	190	190	190	190	190

Source: Eviews 9 data processing.

In this study, descriptive analysis is used to understand the overview of the research variables in the sample companies during the study period of 2018-2022. Descriptive analysis is conducted by examining the minimum, maximum, mean, and standard deviation values.

Based on Table 4, the minimum value of gender diversity is 0.0000000, while the maximum value is 0.670000 with a standard deviation of 0.176969. The minimum value of firm size is 1794.000, while the maximum value is 2490.000 with a standard deviation of 156.9111. The minimum value of sales growth is -0.930000, while the maximum value is 7.530000 with a standard deviation of 0.836053. The minimum value of intellectual capital is -22.70000, while the maximum value is 50.99000 with a standard deviation of 7.020901. Lastly, the minimum value of financial distress is -3.3300000, while the maximum value is 28.72000 with a standard deviation of 3.459139.

5.2. Selection of Panel Data Estimation Model Technique

This test aims to determine the most appropriate regression model for panel data, whether it should use the Common Effect Model (CEM), Fixed Effect Model (FEM), or Random Effect Model (REM).

5.3. Chow Test

The Chow test is used to determine which model to choose for estimating the regression model for panel data, whether it is the Common Effect Model (CEM) or the Fixed Effect Model (FEM).

Table 2: Chow Test with Financial Distress as the Dependent Variable.
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.252752	(37,149)	0.0000
Cross-section Chi-square	136.949691	37	0.0000

Source: Eviews 9 data processing.

Based on the data processing results of the Chow test using Eviews 9 in table 1, it shows that the cross-section chi-square value is < 0.05 (5%), indicating that the Fixed Effect Model (FEM) is a better choice for estimating the regression model for panel data compared to the Common Effect Model (CEM).

5.4. Hausman Test

The Hausman test is conducted to determine which model to use between the Fixed Effect Model (FEM) or the Random Effect Model (REM).

Table 3: Hausman Test with Financial Distress as the Dependent Variable.
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.924685	3	0.0030

Source: Eviews 9 data processing

Based on the data processing results of the Hausman test using Eviews 9 in table 2, it can be observed that the probability value of cross-section random is < 0.05 (5%). Therefore, the panel data regression used in this study is the Fixed Effect Model (FEM).

5.5. Uji Lagrange Multiplier

Table 4: Lagrange Multiplier Test with Financial Distress as the Independent Variable

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided
      (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	39.86638	1.021804	40.88819
	(0.0000)	(0.3121)	(0.0000)
Honda	6.313983	-1.010843	3.749886
	(0.0000)	--	(0.0001)
King-Wu	6.313983	-1.010843	1.011888
	(0.0000)	--	(0.1558)
Standardized Honda	6.732224	-0.772949	-0.447849
	(0.0000)	--	--
Standardized King-Wu	6.732224	-0.772949	-1.863299
	(0.0000)	--	--
Gourierioux, et al.*	--	--	39.86638
			(< 0.01)

Source: Eviews 9 data processing

The probability value of the LM-test Breusch Pagan (0.0000) is smaller than $\alpha = 0.05$, therefore it can be concluded that the random effect model is better than the common effect model in estimating financial distress.

Based on the paired testing results using the Chow test, Hausman test, and LM test on the regression model of panel data above, it can be concluded that the fixed effect model (FEM) is further used to estimate and analyze the influence of gender diversity, firm size, and sales growth on financial distress moderated by intellectual capital.

5.6. Estimation Results of Panel Data Regression Model

Based on the selection of the panel data regression model in this study, the results show that the best model is the Fixed Effect Model (FEM). Therefore, testing for partial (t), simultaneous (F) effects, and calculation of the coefficient of determination will be conducted by examining the values obtained from the estimation results of the Fixed Effect Model.

Table 5: Results of Panel Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	59.20641	50.70301	1.167710	0.2448
GD	12.47862	2.883322	4.327861	0.0000
FS	-2.605024	2.278397	-1.143358	0.2547
SG	0.553993	0.253973	2.181305	0.0307

Cross-section fixed (dummy variables)

R-squared	0.525356	Mean dependent var	3.590805
Adjusted R-squared	0.397935	S.D. dependent var	3.459200
S.E. of regression	2.684092	Akaike info criterion	5.001063
Sum squared resid	1073.448	Schwarz criterion	5.701737

Log likelihood	-434.1010	Hannan-Quinn criter.	5.284896
F-statistic	4.122989	Durbin-Watson stat	1.496741
Prob(F-statistic)	0.000000		

Source: Eviews 9 data processing

5.7. Partial Hypothesis Testing (t Test)

a. The probability value of the influence of gender diversity on financial distress is $0.0000 < \alpha = 0.05$, therefore H0 is rejected. The regression coefficient has a positive value of 12.47862, indicating that an increase in gender diversity in a company will lead to an increase in financial distress.Nilai probabilitas pengaruh firm size terhadap financial distress adalah sebesar $0,2547 > \alpha = 0,05$ sehingga H0 diterima. Nilai koefisien regresi bertanda negatif sebesar -2,605024.

b. The probability value of the influence of firm size on financial distress is $0.2547 > \alpha = 0.05$, therefore H0 is accepted. The regression coefficient has a negative value of -2.605024.

c. The probability value of the influence of sales growth on financial distress is $0.0307 < \alpha = 0.05$, therefore H0 is rejected. The regression coefficient has a positive value of 0.553993, indicating that an increase in sales growth in a company will lead to an increase in financial distress.

5.8. Simultaneous Hypothesis Testing (F-Test)

The F-test result shows an F-Statistic value of 0.000000, which is smaller than $\alpha = 0.05$ (0.000000 < 0.05), indicating that H0 is rejected and Ha is accepted. This indicates that the independent variables, namely gender diversity, firm size, and sales growth, collectively have a significant influence on financial distress.

5.9. The Coefficient of Determination Test

The coefficient of determination (R^2) test yields a value of 0.525356, which means that 52.5% of the variation in the changes of financial distress can be explained by the independent variables, while the remaining 47.5% can be attributed to other variables that were not examined in this study.

5.10. Moderated Regression Analysis

Table 6: Results of Moderated Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GD	-1.094715	1.340271	-0.816787	0.4151
FZ	-0.196704	0.146276	-1.344746	0.1804
SG	0.333860	0.377811	0.883669	0.3780
GD_VAIC	0.898279	0.255269	3.518947	0.0005
FZ_VAIC	0.000233	0.003042	0.076570	0.9390
SG_VAIC	0.009743	0.032147	0.303065	0.7622
C	7.512668	3.322104	2.261419	0.0249

Source: Eviews 9 data processing

The moderation test results, as seen in the table, show a probability value of the interaction variable of 0.00005, which is smaller than $\alpha = 0.05$, indicating moderation. This means that the moderating variable, approximated by intellectual capital, can strengthen the relationship between gender diversity and financial distress.

However, the moderating variable approximated by intellectual capital cannot strengthen the relationship between firm size and financial distress because the probability $(0.9390) > \alpha = 0.05$. Similarly, the moderating variable approximated by intellectual capital cannot strengthen the relationship between sales growth and financial distress because the probability $(0.7622) > \alpha = 0.05$.

6. Conclusions

6.1. The Influence of Gender Diversity on Financial Distress

With the presence of gender diversity in financial decision-making, there will be diverse perspectives and thoughts that can help in facing challenges and risks. Women and men have different life experiences, so diverse perspectives can help identify problems comprehensively and find more effective solutions. The presence of women tends to be more conservative in taking risks compared to men. This could mean that decisions made by women in top management can have an impact on slower or less aggressive company growth. The influence of gender diversity is significantly positive. This is in line with the research by Ramadanty and Khomsiyah (2022) and Rodiah and Kristanti (2023), which state that the higher the proportion of women in top management, the greater the chance of financial distress because women are considered more cautious in making financial decisions and take longer time compared to male directors who are more willing to take risks.

6.2. The Influence of Firm Size on Financial Distress

In panel data regression analysis, it can be seen that firm size does not have a significant influence on financial distress. This may be because the size of the company does not always reflect the actual financial health. Although large companies may have larger resources, they may also have higher operational costs. Therefore, firm size is not the only factor determining financial stability. In addition, there are many small companies that are successful and financially stable. Smaller company size can provide greater flexibility to adapt to market changes and make quick and efficient decisions. This result is in line with the research by Muslimin and Bahri (2022), Aldama and Kristanti (2022), and Bernardin and Indriani (2020), which state that large companies have larger assets and have the ability to borrow money from third parties using assets as collateral. Large companies are considered more capable of facing crises and managing their businesses. However, if a company fails to manage its finances well, it can lead to increased operational costs and increased financial distress risk.

6.3. The Influence of Sales Growth on Financial Distress

In panel data regression analysis, it can be seen that sales growth has a significant positive influence. The larger the revenue growth, the more successful the company is in implementing marketing and sales strategies. Thus, the company is expected to gain greater profits. The growth rate is an indicator used to analyze revenue growth. However, this research shows that the sales growth rate has a greater influence on the risk of financial distress. Although high sales growth can be considered positive, it does not guarantee lower costs and higher profits. On the contrary, high sales growth can also lead to higher costs and increased risk of financial distress. This result is in line with the research by Purwanti and Syarif (2022), Muslimin and Bahri (2022), and Mulyatiningsih and Atiningsih (2021), which state that high sales growth in companies can lead to financial distress. The impact is that the higher the sales growth in a company, the higher the burden that the company has to bear. As a result, the profit obtained by the company will decrease.

6.4. The Influence of Gender Diversity, Firm Size, and Sales Growth on Financial Distress

In panel data regression analysis, it can be seen that gender diversity, firm size, and sales growth simultaneously have a significant influence on financial distress. This can be proven by the probability value of $0.00000 < \alpha = 0.05$. This result is in line with the research by Nathania and Vitariamettawati (2022), which states that gender diversity, sales growth, and intellectual capital are together in financial distress. The research by Prasetya and Oktavianna (2021) also shows that sales growth and intellectual capital simultaneously financial distress. Aji and Anwar (2022) state that firm size and sales growth together financial distress.

6.5. Intellectual Capital in Moderating the Influence of Gender Diversity on Financial Distress

In the moderation regression analysis, it is found that intellectual capital can moderate the influence of gender diversity on financial distress. The probability value of $0.0005 < \alpha = 0.05$ proves this. Intellectual capital can moderate gender diversity in terms of involving diverse knowledge, skills, and experiences. With rich intellectual capital, a company can combine various knowledge and skills possessed by team members with different gender backgrounds. This allows the company to face financial challenges from various perspectives and broader approaches, thus reducing the risk of financial distress. However, the presence of female directors who may have less strong analytical skills to manage company finances wisely can also occur. This could be due to a lack of understanding of financial data analysis or a lack of experience in making fact-based and cautious decisions. As a result, this can lead the company to a decline in financial performance due to slow and less accurate management decisions. The stronger the intellectual capital possessed by gender diversity in top management of a company, the more it will affect the condition of financial distress.

6.6. Intellectual Capital in Moderating Firm Size on Financial Distress

In the moderation regression analysis, it was found that intellectual capital is unable to moderate the influence of firm size on financial distress. The probability value of 0.9390 is greater than $\alpha = 0.05$. As a company grows larger, its operations become more complex. This could mean that there are more risks to be faced, including financial risks. Even though a company or its management has strong intellectual capital, the large size of the company can make financial distress risks more complex and difficult to overcome, even with good knowledge and skills. Additionally, there are external factors that also influence the financial distress risks of a company, such as economic conditions, market competition, or regulatory changes. The intellectual capital that a company possesses may help in anticipating and responding to these factors, but there are still limitations. Sometimes, the impact of these external factors can be so strong that the company's intellectual capital is not sufficient to moderate them.

6.7. Intellectual Capital in Moderating Sales Growth on Financial Distress

In the moderation regression analysis, it was found that intellectual capital is unable to moderate the influence of sales growth on financial distress. The probability value of 0.7622 is greater than $\alpha = 0.05$. Intellectual capital is indeed important in managing risks and making smart decisions. However, high sales growth can also bring its own risks. When a company experiences rapid sales growth, there is a possibility of pressure on the company's resources and finances. The intellectual capital of the management can help in anticipating and managing these risks, but it cannot always prevent the occurrence of financial distress risks. High sales growth also means the need to increase production capacity, infrastructure, and human resources. All of these require significant investments and can affect the company's liquidity. The intellectual capital of the management can help in planning investments wisely, but there are still external factors that can influence the success of these investments, such as market changes or intense competition. This is supported by Utami and Agustin (2020) who stated that the size of a company does not affect the disclosure of intellectual capital because companies may limit the disclosure of intellectual capital to maintain competitive advantage and not signal to competitors.

is able to moderate the influence of gender diversity on financial distress, but it is unable to moderate the influence of firm size and sales growth on financial distress. Based on the results of this research, it is expected that company management pays attention to the proportion of gender diversity in top-level management. Additionally, sales growth should be accompanied by increased profits, meaning that the company can manage its burdens effectively. The company also needs to enhance its intellectual capital, especially at the top-level management, as it plays a role in the decision-making process to avoid financial distress. In future research, it is hoped that various diverse independent variables, such as macroeconomic factors and political risks, can be added. Additionally, it is also expected to extend the research period and use samples from other companies listed on the Indonesia Stock Exchange.

References

Agustia, Y. P., &; Suryani, E. (2018). The Effect of Company Size, Company Age, Leverage, and Profitability on Profit Management (Study on Mining Companies Listed on the Indonesia Stock Exchange for the 2014-2016 Period). *Journal of Assets (Research Accounting), 10*(1), 63–74. https://doi.org/https://doi.org/10.17509/jaset.v10i1.12571

Agustini, N. W., &; Wirawati, N. G. P. (2019). The Effect of Financial Ratios on Financial Distress of Retail Companies Listed on the Indonesia Stock Exchange (IDX). *E-Journal of Accounting*, *26*(1), 251–280. https://doi.org/10.24843/eja.2019.v26.i01.p10

Aji, P. S., &; Anwar, S. (2022). The effect of leverage, profitability, liquidity, sales growth, and firm size on financial distress in pulp & paper and plastic & packaging companies listed on the Indonesia Stock Exchange. *Journal of Bina Bangsa Ekonomika*, *15*(1), 43–51. https://doi.org/10.46306/jbbe.v15i1.106

Aldama, N. A., &; Kristanti, F. T. (2022). Financial Performance, Independent Commissioner, Gender Diversity, and Financial Distress. *E-Journal of Economics and Business Udayana University*, *11*(02), 123. https://doi.org/10.24843/eeb.2022.v11.i02.p01

Gaos, R. R., &; Mudjiyanti, R. (2021). THE EFFECT OF CORPORATE GOVERNANCE AND FIRM SIZE ON FINANCIAL DISTRESS (Study on Banking Companies listed on the Indonesia Stock Exchange for the period 2017-2019). *Compartment: Scientific Journal of Accounting*, *19*(1), 13. https://doi.org/10.30595/kompartemen.v19i1.11218

Indarti, M. G. K., Widiatmoko, J., & Pamungkas, I. D. (2020). Corporate Governance Structures and Probability of Financial Distress: Evidence from Indonesia Manufacturing Companies. *International Journal of Financial Research*, *12*(1), 174. https://doi.org/10.5430/ijfr.v12n1p174

Kartika, A., Rozak, H. A., Nurhayati, I., &; Bagana, B. D. (2020). Financial ratios as a prediction of financial distress. *Joint Proceedings. Multi-disciplinary National Seminar and Call for Papers*, 675–681.

Khamisah, N., Nani, D. A., &; Ashsifa, I. (2020). The Effect of Non-Performing Loan (NPL), BOPO, and Company Size on Return on Assets (ROA) of Banking Companies Listed on the Indonesia Stock Exchange (IDX). *Journal of Technobiz*, *3*(2), 18–23. https://doi.org/https://doi.org/10.33365/tb.v3i2.836

Khoirony, N. Al, &; Nazar, S. N. (2023). The Effect of Audit Committee Size, Intellectual Capital and Managerial Ownership on Financial Distress (Empirical Study on Hotel, Restaurant and Tourism Sector Service Companies listed on the IDX for the 2018-2022 Period). *PROCEEDINGS OF STUDENT SCIENTIFIC WEEK (PIM)*, *3*(2), 148–162.

Kurniawati, H., Rasyid, R., &; Setiawan, F. A. (2020). The influence of intellectual capital and company size on the company's financial performance. *Muara Journal of Economics and Business*, *4*(1), 64-76

Marjohan, M. (2021). The effect of financial management learning on gender-moderated investing behavior. JPPI (Indonesian Journal of Educational Research), 7(1), 155-163. https://doi.org/10.29210/020211139

Mokoginta, D. D., &; Agung, T. R. (2022). Risk Management Supervision and financial distress in agency theory. *E-Journal of Accounting, 32*(7), 1675. https://doi.org/10.24843/eja.2022.v32.i07.p01

Mondayri, S., & Tresnajaya, R. T. J. (2022). Influence Analysis Good Corporate Governance, Intellectual Capital, and Operating Cash Flow Against Financial Distress. *My Journal*, *2*(1), 25–43. https://doi.org/10.54957/jurnalku.v2i1.132

Mulyatiningsih, N., &; Atiningsih, S. (2021). The role of profitability in moderating the effect of intellectual capital, leverage, and sales growth on financial distress. *Journal of Accounting Research (CHAMPION)*, *11*(1), 55–74. https://doi.org/10.36733/juara.v11i1.2824

Nabawi, M., &; Efendi, D. (2020). The effect of leverage, profitability, activity, and growth firm on financial distress. *Journal of Accounting Science and Research*, *9*(1), 1–18. http://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/2773/2784

Nathania, V., &; Vitariamettawati, R. (2022). The effect of gender diversity, intellectual capital, sales growth, operating cash flow, and institutional ownership on financial distress. *Trisakti Economic Journal*, *2*(2), 331–342. https://doi.org/10.25105/jet.v2i2.14318

Nila, I. (2021). The effect of corporate governance, financial indicators, and company size on financial distress. *COMPETITIVE Journal of Accounting and Finance*, *5*(2), 62. https://doi.org/10.31000/competitive.v5i2.4196

Pawitri, A. I., &; Alteza, M. (2020). Analysis of the effect of liquidity, profitability*, leverage*, operating capacity, and managerial agency costs on *financial distress*. *Journal of Business Management Focus, 10(2),* 149. https://doi.org/10.12928/fokus.v10i2.2443

Prasetya, E. R., &; Oktavianna, R. (2021). Financial Distress Influenced by Sales Growth and Intellectual Capital. *Indonesian Journal of Sustainable Accounting*, *4*(2), 170–182. https://doi.org/http://dx.doi.org/10.32493/JABI.v4i2.y2021.p170-182

Princess, R. D. (2019). Analysis of the Effect of Sales Growth and Managerial Ownership on Financial Distress Conditions in Manufacturing Companies in Indonesia. *JUSIE (Journal of Social and Economic Sciences)*, *4*(01), 54–63. https://doi.org/10.36665/jusie.v4i01.189

Qalbiyani, N., Karim, N. K., &; Astuti, W. (2022). Analysis of bankruptcy predictions in textile sub-sector manufacturing companies in 2016-2020 using the modified Altman method. *Journal of Accounting Student Research*, *2*(1), 100–111. https://doi.org/https://doi.org/10.29303/risma.v2i1.188

Ramadanty, A. P., & Khomsiyah, K. (2022). The Influence of Intellectual Capital and Gender Diversity on Financial Distress Dimoderasi oleh Firm Size. *Owner*, *6*(4), 3743–3750. https://doi.org/10.33395/owner.v6i4.1132

Rochendi, L. R., &; Nuryaman, N. (2022). The effect of sales growth, liquidity, and company size on financial distress. *Owner: Research & Journal of Accounting*, *6*(4), 3465–3473. https://doi.org/10.33395/owner.v6i4.1113

Rodiah, S. R., &; Kristanti, F. T. (2021). Analysis of gender diversity, corporate governance and leverage in predicting financial distress conditions in family business. *E-Journal of Economics and Business Udayana University*, *10*(11), 1015. https://doi.org/10.24843/eeb.2021.v10.i11.p08

Rudianto. (2013). *Information Management Accounting for Strategic Decision Making*. Jakarta: Erlangga

Ocean, G. D. (2021). Gender diversity and good corporate governance against financial distress. *Eqien: Journal of Economics and Business*, *8*(2), 52–60. https://doi.org/10.34308/eqien.v8i2.226

Safitri, M. G., & Yuliana, I. (2021). The Effect of Profitability and Leverage on Financial Distress with Inflation as Moderating. *Jurnal Aset (Akuntansi Riset)*, *12*(1), 134–143. https://doi.org/https://doi.org/10.17509/jaset.v13i1.31368

Saputra, A. J., & Salim, S. (2020). Effects of Profitability, Leverage, Firm Size, and sales growth towards Financial Distress. *Journal of Accounting Paradigm*, *2*(1), 262–269. https://doi.org/10.24912/jpa.v2i1.7154

Sinambela, T., &; Nur'aini, L. (2021). The Effect of Company Age, Profitability and Sales Growth on Tax Avoidance. *INOBIS : Indonesian Journal of Innovation and Management*, 05*(01), 25–34.* https://doi.org/https://doi.org/10.31842/jurnalinobis.v5i1.209

Sudirgo, T., Yuniarwati, & Bangun, N. (2019). Influence Financial Distress, Financial Performance and Liquidity Against Stock Return. *Business Management Journal*, *15*(2), 77–92. https://doi.org/http://dx.doi.org/10.30813/bmj.v15i2.1802

Suri Utami, R., &; Agustin, H. (2020). The effect of company size, profitability, and reputation of public accounting firms on intellectual capital disclosure. *JOURNAL OF ACCOUNTING EXPLORATION, 2*(3), 3197-3215. https://doi.org/10.24036/jea.v2i3.277

Suzan, L., &; Rini, A. C. (2022). Journal of E-Bus: Business Economics Influence of Intellectual Capital Components Based on the Pulic Method. *Journal of E-Bus: Business Economics*, *6*(2), 498–512. https://doi.org/https://doi.org/10.37339/e-bis.v6i2.951 Info

Widiastari, P. A., &; Yasa, G. W. (2018). The Effect of Profitability, Free Cash Flow, and Company Size on Company Value. *E-Journal of Accounting*, *23*(2), 957–981. https://doi.org/10.24843/eja.2018.v23.i02.p06

Yuliani, R., &; Rahmatiasari, A. (2021). The Effect of Corporate Governance on Financial Distress with Financial Performance as a Moderating Variable (Manufacturing Companies on the IDX).