

## A Case Study on the Registered Transportation and Logistics Sector in the Indonesia Stock Exchange in 2020–2021), "Moderating Effects of Tax Planning on the Effect of Incentives Tax, Financial Distress, and Women Directors on Earnings Management"

Lu'lu'ul Jannah<sup>1</sup>, Erni Hernawati<sup>2</sup>

<sup>1,2</sup> Media Nusantara Citra University

Email: [luluul.jannah@mncu.ac.id](mailto:luluul.jannah@mncu.ac.id), [ernihernawati67@gmail.com](mailto:ernihernawati67@gmail.com)

### Abstrak

Penelitian ini menguji pengaruh moderasi perencanaan pajak terhadap dampak insentif pajak, financial distress, dan direktur wanita terhadap manajemen laba. Sampel penelitian ini adalah perusahaan transportasi dan logistik yang terdaftar di Bursa Efek Indonesia tahun pengamatan 2020–2021. Jumlah sampel yang memenuhi kriteria adalah 42 sampel. Variabel yang digunakan dalam penelitian ini adalah variabel dependen yaitu manajemen laba; variabel independennya adalah insentif pajak, financial distress, dan direktur wanita, sedangkan variabel perencanaan pajak adalah variabel moderasi. Metode analisis yang digunakan dalam penelitian ini mengikuti pola model persamaan Structural Equation Modeling (SEM). Alat analisis data menggunakan STATA (Statistik dan Data). Hasil penelitian menunjukkan bahwa financial distress berpengaruh terhadap manajemen laba. Sedangkan variabel lainnya tidak berpengaruh terhadap manajemen laba.

**Kata Kunci:** Covid-19; Transportasi, Insentif Pajak; Kesulitan Keuangan, Direktur Wanita

### Abstract

The moderating impact of tax planning on the effects of tax incentives, financial hardship, and women directors on earnings management is examined in this study. Companies in the transportation and logistics industries that are listed on the Indonesia Stock Exchange for the observation year 2020–2021 make up the sample of this study. There are 42 samples in total that satisfy the requirements. The dependent variable in this study is earnings management; the independent variables are tax incentives, financial crisis, and women directors; the moderating variable is tax planning. The analytical approach employed in this study is based on the structure of the SEM equation model. Utilizing STATA as the data analysis tool (Statistics and Data). Financial hardship has an impact on earnings management, according to the findings. Other factors, on the other hand, had no impact on earnings management.

**Kata Kunci:** Covid-19; Transportation, Tax Incentives; Financial Distress, Women Directors

### INTRODUCTION

The 2019 Coronavirus (Covid-19) outbreak has had an effect on a number of industries. The logistics and transportation industry is one of the areas impacted. In particular, restrictions pertaining to travel and transportation have been implemented by the government to stop the spread of Covid-19. To stop the spread of Covid-19, the government has taken action on both the national and local levels to regulate traffic and cap the number of passengers; however, the government's efforts are

detrimental to the logistics and transportation industries. Starting with restrictions on transportation modes, a decline in revenue flow, a reduction in employees, losses, and even the possibility or risk of bankruptcy, these negative effects are felt by the transportation sector (Ministry of Finance, 2021). Financial distress is the term used to describe the decline in cash flow experienced by transportation companies. Financial distress is the state in which a business is in before it files for bankruptcy. (Selahudin et al., 2014).

To lessen the effects of the Covid-19 pandemic, the government has implemented a tax incentive policy. Regarding Tax Incentives for Taxpayers Affected by the 2019 Corona Virus Disease Pandemic, this is in accordance with Minister of Finance Regulation Number 44/PMK.03/2020 (Minister of Finance of the Republic, 2020). The tax incentives given to companies in the transportation and logistics sector are expected to save the industry. Companies also need to do proper planning in responding to these uncertain conditions. The board of directors in the company can do tax planning. The female board of directors is the proper party in making planning policies.

Management and business owners aim to boost revenues for each party based on agency theory. The board of directors' planning may lead to issues for the organization. Plans made by the board of directors may be advantageous to management. The board of directors has the option to control earnings for personal gain during the planning phase. However, because women are more cautious, avoid risks, and uphold high ethical standards, it is anticipated that a female board of directors will be able to prevent and diminish motivation to undertake profits management.

#### **Tax**

Incentives Tax incentives are a type of tax convenience that the government offers some taxpayers. This facility, which takes the form of lower tax rates, tries to lower the amount of taxes the business must pay. Tax breaks incentivize businesses to make investments (Jafri & Mustikasari, 2018). Offering incentives might have an impact on how the company manages its earnings. Tax-deductible and non-taxable incentives are both forms of incentives. Tax incentives occur when businesses view taxes as a cost that would lower their earnings and persuade them to distort their financial statements in order to pay the least amount of taxes possible (Zhafirah, 2019).

H1: Tax incentives have a significant effect on earnings management

#### **Financial Distress**

When a business is having financial issues, it is said to be in financial distress (Sucipto & Zulfa, 2021). The uncertainty of the company's future profitability is a sign of financial distress. Additionally, the business's financial situation was precarious before it filed for bankruptcy. Due to a shortage of resources to operate, the company is unable to meet its obligations (Puri & Gayatri, 2018), and this financial distress can lead the management to adopt earnings management practices (Setyaningrum et al., 2019). In times of financial difficulty, management often manages earnings by enhancing the company's financial statements. In order to hide a company's financial issues, management also engages in earnings management.

H2: The management of earnings is significantly impacted by financial distress.

#### **Women Directors**

Companies that have female directors imply that the company does not discriminate against anyone to take crucial positions in the company. The existence of female directors affects the policies implemented by the organization. Women significantly affect earnings management in a negative way (Santana & Wirakusuma, 2016). so that female directors could be able to lessen the company's profits

management practices. This is due to the fact that women are less motivated to execute earnings management because they are more cautious, risk-averse, and have higher ethical standards. The practice of earnings management may be constrained by the presence of women on the board of directors.

H3: The management of earnings is significantly impacted by women directors.

#### **Tax Planning**

Tax planning is a strategy used by the business to meet its tax responsibilities. Due to conflicting corporate and governmental objectives, tax planning is necessary. The distinction between taxes as a burden on businesses and taxes as a source of revenue for the government to pay for state spending is what causes the interest rate to differ. The corporation has a better chance to exercise earnings management the more sophisticated the tax planning. Management uses the company's profit as a tax base when conducting tax planning to lessen the tax burden. Research by Santana & Wirakusuma (2016), which asserts that tax planning has a favorable impact on earnings management, supports this.

The Covid-19 epidemic, which had an effect on the logistics and shipping industries, led to financial difficulties for a number of businesses. In order for the government to adopt a policy of offering tax incentives in order to revive the economy and raise state tax collections. Management must provide tax incentives and financial distress issues their full attention. To address financial difficulties and tax advantages, management can engage in tax planning. Female directors are proficient at tax planning because they are the company's management. Women are more likely to be able to plan ahead and exercise greater caution, so this is the case.

It turns out that these two elements, namely financial distress and tax incentives, are factors that motivate management to manage profitability in addition to the impact of the COVID-19 pandemic. In order to hide its financial issues from stakeholders while it is in financial difficulties, a corporation may frequently manage its earnings. Because the tax incentive is based on the amount of profit made, it also pushes management to manage earnings when it is granted to the company. so that management's tax planning can influence how tax incentives, financial hardship, and women directors affect earnings management.

H4: With tax planning acting as a moderating factor, tax incentives have an impact on earnings management.

H5: Earnings management is impacted by financial distress, with tax planning acting as a moderating factor.

H6: Women directors affect earnings management with tax planning as a moderating variable

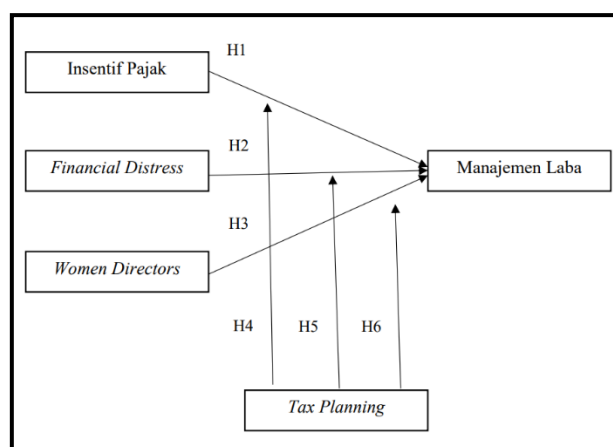
#### **Earnings**

Management In order to balance out, enhance, and decrease profits, condition management, also known as earnings management, intervenes in the preparation of financial reports for third parties (Santana & Wirakusuma, 2016). The goal of earnings management is to deceive stakeholders into believing that the firm is performing well and that its financial situation is stable. Company managers attempt to meddle in or influence the information in financial statements. Earnings management is viewed as a task that managers shouldn't perform. Because earnings management is used, the information presented does not accurately reflect the company's state, which may lead stakeholders to make bad judgments (Kamil, 2018).

**Table 1. State of the Art**

| No | Journal Title  | (Author, Published Year): Name of the Journal                          | Disparities in the Research that Serves as the Foundation for Research                                     |
|----|--|--|--|
| 1  | <i>Women directors, firm performance, and firm risk: A causal perspective</i>  | (Yang et al., 2019); The Leadership Quarterly                          | This excludes factors affecting tax planning, tax incentives, financial hardship, and earnings management. |
| 2  | <i>Earnings management, business strategy, and bankruptcy risk: evidence from Indonesia</i>                                | ((Dian Agustia,* Nur Pratama Abdi Muhammad, 2020); Heliyon Journal     | This does not include tax planning variables, tax incentives, financial distress, and women directors      |
| 3  | <i>The moderating effect on the board of directors on firm value and tax planning: Evidence from European listed firms</i> | (Khaoula & Moez, 2019); Borsa Istanbul                                 | excluding financial hardship, women directors, tax incentives, and earnings management variables           |
| 4  | Effect of tax incentives and non-tax incentives on earnings management   | (Ayu, 2019); Proceeding of National Conference on Accounting & Finance | Financial hardship, tax planning, and factors specific to women directors are excluded.                    |
| 5  | The effect of financial distress on earnings management with corporate governance moderation                               | (Tannaya & Lasdi, 2021); Accounting Student Scientific Journal         | It excludes tax planning, tax incentives, and women directors.   |

In this study, the following framework was developed based on the hypothesis generated by a review of the literature and the state of the art.



**Figure 1. Thinking Framework**

## METHODS

All of the companies included in this study are listed on the Indonesia Stock Exchange (IDX). Purposive sampling, which is based on particular criteria, was employed as the sample technique. The sample was chosen based on the number of transportation and logistics companies that were listed on IDX in 2020–2021. Earnings management is the study's dependent variable. Tax incentives, financial

hardship, and female directors all function as independent factors in this study. Tax preparation is the moderating factor in this study.

**Table 2. Operational Variables and Measurement**

| Measured Variables                   | Indicator  | Scale |
|--------------------------------------|--|-------|
| Earnings Management (Y)              | <i>Discretionary Accrual (DA) modified Jones Model</i>                             | Ratio |
| Tax Incentive (X <sub>1</sub> )      | $TAXPLAN = \frac{Tarif\ PPh \times (PTI - CTE)}{Total\ Aset}$                      | Ratio |
| Financial Distress (X <sub>2</sub> ) | $Z - Score = 1,2X_1 + 1,4X_2 + 3,3X_3 + 0,6X_4 + 1,0X_5$                           | Ratio |
| Women Directors (X <sub>3</sub> )    | The ratio between the number of female directors and the total number of directors | Ratio |
| Tax Planning (M)                     | $ETR = \frac{Beban\ Pajak\ Penghasilan}{Laba\ Sebelum\ Pajak}$                     | Ratio |

The Structural Equation Modeling (SEM) equation model is the basis for the analytical approach employed in this work. STATA is the data analysis tool (Statistics and Data). SEM data analysis was used to fully explicate how the study's variables related to one another. The following is the research model that was utilized to calculate the interaction between the variables:

$$MLit = 0 + 1IPit + 2FDit + 3WDit + \varepsilon \dots \dots \dots \text{Model 1}$$

$$MLit = 0 + 1IPit + 2FDit + 3WDit + 4TPit + 5IP*TPit + 6FD*TPit + 7WD*TPit \dots \dots \dots \text{Model 2}$$

Description:

ML : Earnings management

IP : Tax incentives

FD: Financial distress

WD: Women directors

TP : Tax planning

IP\*TP: Interaction between tax incentives and tax planning

FD\*TP: Interaction between financial distress and tax planning

WD\*TP: Interaction between women directors and tax

planning : Error

## RESULTS AND PUBLISH

### Statistics Description

**Table 3. Statistics Description**

| Variable | Obs | Mean      | Std. dev. | Min       | Max      |
|----------|-----|-----------|-----------|-----------|----------|
| ML       | 42  | -.0002172 | .020446   | -.0525729 | .0516773 |
| IP       | 42  | .0124178  | .0702446  | -.0838932 | .4150194 |
| FD       | 42  | 4.580826  | 12.36646  | -11.13198 | 58.84167 |
| WD       | 42  | .1170635  | .1886512  | 0         | .5       |
| TP       | 42  | .3152466  | 1.210945  | -.5638792 | 7.813433 |

A sample of 42 samples was used to monitor all variables. The average value of the earnings management variable is -0.0002172 with a standard deviation of 0.020446, the average value of the tax incentive variable is 0.0124178 with a standard deviation of 0.0702446, the average value of the financial distress variable is 4.580826 with a standard deviation of 12.36646, the average value of the women director variable is 0.1170635 with a standard deviation of 0.1886512, and the average value of the tax planning variable is 0.3152466.

### Classical Assumption Test

#### 1. Normality Test

**Table 4. Normality Test**

Skewness and kurtosis tests for normality

| Variable | Obs | Pr(skewness) | Pr(kurtosis) | Joint test  |           |
|----------|-----|--------------|--------------|-------------|-----------|
|          |     |              |              | Adj chi2(2) | Prob>chi2 |
| res      | 42  | 0.2072       | 0.1714       | 3.71        | 0.1564    |

In order to test for normality, skewness and kurtosis are used. The Prob>chi2 value demonstrates the results of this normalcy test. The residual value in the data is referred to as expected if the value is greater than 0.05. Prob>chi2 indicates a value of 0.1564, according to the data. It follows that the normality test was successful.

#### 2. Heteroscedasticity Test

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity  
Assumption: Normal error terms  
Variable: Fitted values of ML

H0: Constant variance

chi2(1) = 0.95  
Prob > chi2 = 0.3286

**Figure 2. Heteroscedasticity Test Results Heteroscedasticity**

The test was carried out using the Breusch-Pagan/Cook-Weisberg test. This test is said to be free of heteroscedasticity if the Prob>chi2 value is above the 0.05 significance value. Based on the results of the heteroscedasticity test, the data is said to be free from heteroscedasticity. This is because Prob>chi2 shows a value of 0.3286.

### 3. Multicollinearity Test

**Table 5. Multicollinearity Test Results**

| Variable        | VIF         | 1/VIF    |
|-----------------|-------------|----------|
| FD              | 1.03        | 0.975316 |
| WD              | 1.02        | 0.983389 |
| IP              | 1.01        | 0.991617 |
| <b>Mean VIF</b> | <b>1.02</b> |          |

The multicollinearity test was tested using VIF or Variance Inflation Factor. The independent variable is said to have no multicollinearity if the VIF is below the value of 10. Based on the data in table 5, the independent variable does not occur in multicollinearity.

### 4. Hypothesis Testing

**Model 1 Table 6. Hypothesis results of model 1**

reg ML IP FD WD

| Source   | SS         | df | MS         | Number of obs | = | 42     |
|----------|------------|----|------------|---------------|---|--------|
| Model    | .002398788 | 3  | .000799596 | F(3, 38)      | = | 2.06   |
| Residual | .014740783 | 38 | .000387915 | Prob > F      | = | 0.1216 |
|          |            |    |            | R-squared     | = | 0.1400 |
|          |            |    |            | Adj R-squared | = | 0.0721 |
| Total    | .017139572 | 41 | .000418038 | Root MSE      | = | .0197  |

| ML    | Coefficient | Std. err. | t     | P> t  | [95% conf. interval] |
|-------|-------------|-----------|-------|-------|----------------------|
| IP    | -.0065598   | .0439736  | -0.15 | 0.882 | -.0955796 .0824601   |
| FD    | .0006154    | .0002519  | 2.44  | 0.019 | .0001055 .0011253    |
| WD    | -.0096951   | .016442   | -0.59 | 0.559 | -.0429801 .02359     |
| _cons | -.0018198   | .0037573  | -0.48 | 0.631 | -.0094262 .0057865   |

Table 6 contains the results of hypothesis testing 1 to 3. The hypothesis is supported if the Prob value in the table is below the significance level of 0.05. Based on the results of hypothesis testing in Table 6, only the 2nd hypothesis is supported, while the first and third hypotheses are not. Hypothesis 2 that is supported that financial distress has a significant effect on earnings management.

**Model 2 Table 7. Hypothesis results of model 2**

| Source   | SS         | df | MS         | Number of obs | = | 42     |
|----------|------------|----|------------|---------------|---|--------|
| Model    | .004796394 | 7  | .000685199 | F(7, 34)      | = | 1.89   |
| Residual | .012343178 | 34 | .000363035 | Prob > F      | = | 0.1024 |
|          |            |    |            | R-squared     | = | 0.2798 |
|          |            |    |            | Adj R-squared | = | 0.1316 |
| Total    | .017139572 | 41 | .000418038 | Root MSE      | = | .01905 |

| ML    | Coefficient | Std. err. | t     | P> t  | [95% conf. interval] |
|-------|-------------|-----------|-------|-------|----------------------|
| IP    | .0364195    | .0503823  | 0.72  | 0.475 | -.0659697 .1388086   |
| FD    | .0004243    | .0004209  | 1.01  | 0.320 | -.0004309 .0012796   |
| WD    | -.0065211   | .0176428  | -0.37 | 0.714 | -.0423755 .0293334   |
| TP    | .0072578    | .0167289  | 0.43  | 0.667 | -.0267394 .041255    |
| IPTP  | -1.418275   | .7501318  | -1.89 | 0.067 | -2.942726 .1061766   |
| FDTTP | .0002505    | .0010106  | 0.25  | 0.806 | -.0018034 .0023044   |
| WDTP  | -.0429627   | .0606471  | -0.71 | 0.484 | -.1662125 .0802871   |
| _cons | .0026508    | .0052383  | 0.51  | 0.616 | -.0079946 .0132963   |

Table 7 contains the results of hypothesis testing 4 to 6 or hypotheses for moderating variables. The hypothesis is supported if the Prob value in the table is below the 0.05 significance. Based on the results of hypothesis testing in table 7, all hypotheses 4, 5, and 6 are not supported. This is because the Prob value is above the significance value of 0.05.



## CONCLUSION

According to the results of the hypothesis testing, only the second hypothesis—that financial strain significantly affects earnings management—is supported. The uncertainty of the company's profitability in the future characterizes the financial difficulty experienced by businesses in the transportation and logistics sector. The Covid-19 condition, which creates uncertainty about the future, is to blame for this. This results in issues for the corporation, including the inability of the company to fulfill responsibilities as a result of a lack of money to maintain the business. (Puri & Gayatri, 2018). So that the financial distress that occurs in the company can influence the management to practice earnings management (Setyaningrum et al., 2019). In times of financial difficulty, management often manages earnings by enhancing the company's financial statements. In order to hide a company's financial issues, management also manages earnings. Other theories, however, are not supported at the same time. The first premise, according to which tax incentives have no impact on earnings management, provides an explanation for this. This is due to the fact that companies in this sector do not implement earnings management as a result of the modest tax incentives they receive. The third claim is that the management of earnings is unaffected by women directors. The company does not practice earnings management because it is too risky to do so, which is supported by the nature of women, who are more cautious in their actions and dislike risk. The tax planning variable, which serves as a moderating variable for the fourth, fifth, and sixth hypotheses, has no effect on how strongly the independent variable influences the dependent variable. This is due to the fact that tax planning is not done when a company receives tax incentives while also experiencing financial hardship. In the meantime, because women are more cautious and risk-averse, a female board of directors does not manage earnings. Because the goal of earnings management for transportation and logistics companies is to prevent a decline in profits, as opposed to tax planning's goal of lowering the amount of taxable profit, tax planning does not affect the strengthening and weakening of independent variables on earnings management.

The sample employed in this study contains flaws. The only samples used in this study are from the transportation and logistics industry, and the only time period it addresses is from 2020 to 2021. The small determination value of 13.16 percent indicates that more research is needed in order to increase the sample size and the observational year as well as other factors that were not examined in this study. Therefore, 86.84% of the variables not included in this study can still be used in future investigations.

## REFERENCES

- Ayu, BDP (2019). The Effect of Tax Incentives and Non-Tax Incentives on Earnings Management. Indonesian Islamic University, 4(1986), 154. <https://doi.org/10.20885/ncaf.vol4.art37>
- Dian Agustia, \* Nur Pratama Abdi Muhammad, and YP (2020). Earnings management, business strategy, and bankruptcy risk: evidence from Indonesia. Heliyon, 6(2). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7005427/>
- Jafri, HE, & Mustikasari, E. (2018). The Effect of Tax Planning, Tunneling Incentives and Intangible Assets on Transfer Pricing Behavior in Manufacturing Companies with Special Relationships Listed on the Indonesia Stock Exchange for the 2014-2016 Period. Indonesian Accounting and Finance Periodic, 3(2), 63. <https://doi.org/10.20473/baki.v3i2.9969>
- Kamil, I. (2018). PROFIT MANAGEMENT PRACTICE CONCEPT IN STUDENT ETHICAL PERCEPTION (Case Study at XYZ University). Profita Journal, 11(1), 053. <https://doi.org/10.22441/profita.v11.01.004>
- Finance. (2021). Recording the Covid-19 Pandemic and Understanding the Hard Work of State Budget Guards. <https://www.kemenkeu.go.id/media/18295/buku-record-pandemi-covid-19-dan->



memahami-kerja-cepat-pengawal-apbn.pdf

- Khaoula, F., & Moez, D. (2019). The moderating effect of the board of directors on firm value and tax planning: Evidence from European listed firms. *Borsa Istanbul Review*, 19(4), 331–343. <https://doi.org/10.1016/j.bir.2019.07.005>
- Minister of Finance of the Republic, I. (2020). PMK 44/PMK.03/2020 concerning Tax Incentives for Taxpayers Affected by the 2019 Corona Virus Disease Pandemic. 19, 115.
- Puri, AR, & Gayatri, G. (2018). Good Corporate Governance Moderates the Effect of Financial Distress on Earnings Management. *E-Journal of Accounting*, 2018(1), 489–512. <https://doi.org/10.24843/EJA.2018.v23.i01.p19>
- Rioni, YS, & Junawan. (2021). The Effect of Tax Planning on Earnings Management in Non-Manufacturing Companies Listed on the Indonesia Stock Exchange. *Journal of Business & Public Accounting*, 11(2), 116–126. <https://jurnal.pancabudi.ac.id/index.php/akuntansibisnisdanpublik/article/view/3928>
- Santana, DKW, & Wirakusuma, MG (2016). The Effect of Tax Planning, Managerial Ownership and Firm Size on Earnings Management Practices. *Udayana University Accounting E-Journal*, 14(3). <https://doi.org/10.37932/jev8i2.40>
- Selahudin, NF, Zakaria, NB, & Sanusi, ZM (2014). They are remodeling the Earnings Management with the Appearance of Leverage, Financial Distress, and Free Cash Flow: Malaysia and Thailand Evidences. In *Journal of Applied Sciences* (Vol. 14, Issue 21, pp. 2644–2661). <https://doi.org/10.3923/jas.2014.2644.2661>
- Setyaningrum, GC, Sekarsari, PSS, & Damayanti, TW (2019). The Influence of Female Executives on Earnings Management. *Journal of Economics and Banking*, 4(1), 98–110. <http://e-journal.stie-aub.ac.id/index.php/probank>
- Sucipto, H., & Zulfa, U. (2021). The Influence of Good Corporate Governance and Company Size on Earnings Management. *Diponegoro Journal of Accounting*, 4(3), 1–17.
- Tannaya, CIN, & Lasdi, L. (2021). Effect of Financial Distress on Earnings Management With Good Corporate Governance as Moderating Variable. 10(1). <https://doi.org/10.33508/jima.v10i1.3453>
- Yang, P., Riepe, J., Moser, K., Pull, K., & Terjesen, S. (2019). Women directors, firm performance, and firm risk: A causal perspective. *Leadership Quarterly*, 30(5), 101297. <https://doi.org/10.1016/j.leaqua.2019.05.004>
- Zhafirah, A. (2019). Analysis of Determinants of Financial Distress. *Analysis of Determinants of Financial Distress*, 7(1), 195–202. <https://doi.org/10.17509/jrak.v7i1.15497>