The Role of Profitability and Leverage in Mediation the Effect of Company Size on the Timeliness of Financial Reporting in the Indonesian Stock Exchange

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Authors’ contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

ABSTRACT

Aims: This study is about the timeliness of financial reporting. It aims to analyse the profitability and leverage in mediating the effect of company size on the timeliness of financial reporting of Indonesian Stock Exchange (IDX) issuers in 2017-2019.

Study Design: The design of this research study is correlational.

Place and Duration of Study: Indonesian Stock Exchange (IDX) issuers in 2017-2019.

Methodology: Its population of all companies listed on IDX in 2017-2019, totalling 645 in 2017, 714 in 2018 and 792 in 2019. The sample was chosen intentionally for issuers who were not on time and simple random for issuers who were on time. The number of samples is 222, consisting of 98 who are not on time and 124 who are on time. The data type is secondary data, collected using documentation, while the data processing technique uses a structural equation model.

Results: The results show that the company's size significantly positively affects profitability. Firm size has a significant positive effect on leverage and the timeliness of financial reporting. Profitability has a significant positive influence on the timeliness of financial reporting. Profitability mediates a significant positive influence on company size on the timeliness of financial reporting. However, leverage has a significant positive effect on the timeliness of financial reporting. Leverage does not mediate the influence of company size on the timeliness of financial reporting.

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Conclusion: This study supports the signalling theory in explaining the effect of firm size, profitability and leverage on the timeliness of financial reporting, as well as the role of profitability and leverage in mediating firm size on the timeliness of financial reporting.

Keywords: Profitability; leverage; timeliness of financial reporting; firm size.

1. INTRODUCTION

The publication of financial statements provides a useful signal for investors [1]. Timely financial reports become relevant information and important for decision-making [2,3]. Financial statements can also reduce information asymmetry [4]. However, from 2017 to 2019, companies listed on the Indonesia Stock Exchange were incorrect or late in submitting audited financial reports. In 2017 34 companies were not on time of 645 registered, or 5.27% [5]. In 2018 26 companies were not on the time of 714 registered, or 3.64% [6]. In 2019 there were 42 not on the time of 796 registered, or 5.28% [7]. IDX companies can be classified as timely in submitting reports when they have submitted audited financial statements within the end of the yearly book closing period to the deadline determined by the authority. The deadline for IDX company reporting is April 30 for financial reports before the covid 19 pandemic or before 2019 and June 30 after the covid 19 pandemic or 2019 and after [8].

It is interesting to do research based on the phenomenon of companies that do not report on time. Many factors can affect the timeliness of submitting financial statements, one of which is the company's size. Ashton et al. [9] stated that large companies submit financial reports more timely than small companies. Large companies can be pressured to publish financial statements on time to avoid speculation in trading company shares [10]. The opinions of the two authors are supported by Tinumbia et al. [11], which reveal that company size has a significant positive effect on the accuracy of financial reporting. However, these results are different from Shafiy and Kamalluarifin [12], Ekienabor and Oluwole [13], and Surachyati et al. [14], which reveal that the size of the company does not affect the timeliness of financial reporting.

Based on the business phenomenon and gap research described above, conducting a re-examination is interesting. This study conceptualises the use of mediation of profitability and leverage to increase the effect of firm size on the timeliness of financial reporting. The concept of thinking is that the larger the company's size, the more capable it is in marketing the product so that it has greater potential to earn revenue and profit. In addition, companies with high profitability are good news for the market [15], so they tend to submit financial reports on time. Research results support this prediction; company size significantly positively affects profitability [16,17,18]. On the other hand, profitability positively affects the timeliness of financial reporting [14,12,19,20]. Based on this information, profitability is predicted to mediate the effect of firm size on the timeliness of financial reporting.

The larger company size requires an increase in the capital structure, both from debt and equity. The results of previous studies show that firm size has a significant positive effect on leverage [21,22,23]. On the other hand, Owolabi and Inyang [24] revealed that the issuance of large amounts of debt shows a positive signal to investor confidence, so management will immediately announce information to the market. This is in line with previous studies showing that leverage has a significant positive effect on the timeliness of financial reporting [12,19]. Based on this information, leverage is predicted to mediate the effect of firm size on the accuracy of financial reporting.

Under the phenomenon, gap research, and the concept of the proposed mediation model, the main purpose of this study is to examine profitability and leverage in mediating the effect of firm size on the timeliness of financial reporting on the Indonesia Stock Exchange for the 2017-2019 period.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 The Effect of Firm Size on Profitability

Size is the company's size, which can be measured by: assets, sales, capital, employees, branches, subsidiary companies, etc. The larger the company's size, the more potential to have a large product market, so it has the opportunity to sell products/services with high-profit
performance. In addition, large companies also have higher operating efficiency and more efficient sources of finance, so there will be cost savings; therefore, they have the potential to increase profits [16]. This information is supported by research that company size significantly positively affects profitability [16,17,18]. This means that the larger the company's size, it will increase profitability. From this description, hypothesis 1 (H1): company size positively affects profitability.

2.2 The Effect of Firm Size on Leverage

Leverage is a ratio that shows the ability to pay the entire debt [25]. Larger company sizes have greater access to financial resources or are indebted. Companies with large assets can have the opportunity to obtain greater debt because the assets that can be guaranteed on debt are also large. On the other hand, the larger the company's size, sometimes it requires an increase in the capital structure, both from debt and equity. Thus, the larger the company's size, the potential leverage ratio will increase. This prediction is supported by previous studies, which show that firm size significantly positively affects leverage [21,22,23]. A positive influence indicates that its leverage will increase if the company's size gets bigger. Based on this description, hypothesis 2 (H2): firm size positively affects leverage.

2.3 The Influence of Company Size on Timeliness of Financial Reporting

Large companies are pressured to publish financial statements on time to avoid speculation in trading company shares [10]. Therefore, large companies will use adequate information technology whose processes and results are real-time to publish information on time. Ashton et al. [9] stated that large companies submit financial reports more timely than small companies. The results of research support this opinion that company size positively affects the timeliness of financial reporting [11]. This positive influence indicates that the larger the company's size, the more quickly it takes to report its finances to the public. From the description above, hypothesis 3 (H3): firm size positively affects the timeliness of submitting financial statements.

2.4 The Effect of Profitability Affects the Timeliness of Financial Reporting

Profitability is the company's ability to earn profits from sales, assets or equity. Increasing profitability is good news [15], so management tends to submit financial reports on time. This prediction results from previous studies show that profitability significantly affects the timeliness of financial reporting [12,14,19,20]. This positive influence indicates that if profitability increases, it will be more on time to report its finances to the public. Based on this description, hypothesis 4 (H4): Profitability positively affects the timeliness of financial reporting.

2.5 The Effect of Leverage Affects the Timeliness of Financial Reporting

Owolabi and Inyang [24] revealed that large debt issuance positively signals investor confidence. In addition, Hilmi and Ali [26] revealed that companies experiencing financial difficulties tended to be less punctual in submitting their financial statements than companies that did not experience financial difficulties. The results of previous studies reveal that leverage has a significant positive effect on the timeliness of financial reporting [12,19]. This positive influence indicates that if leverage increases, it will be more time to report its finances to the public. From the description, hypothesis 5 (H5): Leverage positively affects the timeliness of financial reporting.

2.6 Profitability Mediates the Effect of Firm Size on Timeliness of Financial Reporting

Research results by Alarussi and Alhaderi [16], Samosir [17], and Kartiningsh and Daryanto [18] show that firm size has a significant positive effect on profitability. On the other hand, the results of research by Shafiy and Kamalluarifin [12], Surachyati et al. [14], Wulandari [19], and Dahmash [20] show that profitability has a significant positive effect on the timeliness of financial reporting. Based on this information, profitability is predicted as an intermediary or mediating the effect of company size on the timeliness of submitting financial statements. Therefore, hypothesis 6 (H6) is formulated: profitability mediates the effect of firm size on the timeliness of submitting financial statements.

2.7 Leverage Mediates the Effect of Firm Size on Timeliness of Financial Reporting

The results of previous research studies show that company size has a significant positive
effect on leverage [21,22,23]. On the other hand, Wulandari [19], Shafiy and Kamalluarifin [12] reveal that leverage has a significant positive effect on the accuracy of financial reporting. Based on these two opinions, it is predicted that leverage can mediate the effect of firm size on the accuracy of financial reporting. Therefore, arranged hypothesis 7 (H7): leverage mediates the effect of firm size on the timeliness of financial statement submission.

3. RESEARCH METHODS

The population in this study were all companies listed on the Indonesia Stock Exchange (IDX) in 2017, totalling 645, 2018, totalling 714, and in 2019 totalling 792 companies. Determination of the sample in this study using two events, namely:

1. Method purposive sampling or deliberately selecting a sample of issuers who are not timely in submitting audited annual financial reports, namely: in 2017, there were 34 companies. In 2018 there were 26, and in 2019 there were 64 companies [5,6,7], so the number of samples was as many as 124.

2. The simple random method is used for issuers who timely submit audited annual financial reports. Every year, the observed sample is taken randomly through a lottery with the same number as the number of issuers who did not properly submit audited financial statements in 2017, 2018 and 2019.

Based on these criteria, the total sample size is 124 + 124 = 248; there are 26 outliers, so the final sample is 222, consisting of TL.0 (untimely sample) groups of 98 and TL.1 (on-time sample) of 124.

The analysis technique uses a structural equation model as follows:

- Equation 1: $ROA = a_1 + b_1 Size + e_1$
- Equation 2: $DER = a_2 + b_2 Size + e_2$
- Equation 3: $TL = a_3 + b_3 Size + b_4 ROA + b_5 DER + e_3$

Information:

ROA: Return On Assets = profit divided by total assets [12]
DER: Debt Equity Ratio = debt divided by equity [25]
Size: Company Size = Ln Total Assets [12].
TL: Timeliness = dummy variable 1: on time and 0 not on time [12].
a: constant, b: regression coefficient and e: errors

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistical and Independent Samples Test

Table 1 shows the size is sig. 0.120 is greater than 0.05, meaning that there is no significant difference in the mean company size between the TL.0 and TL.1 groups; it is proven that the mean size group TL.0 (the company is not on time) is 27.7160, and the group is TL.1 (the company is right) 29.3360. These results are different from ROA, which is sig. 0.000 is less than 0.05, meaning that there is a significant difference in the mean ROA between the TL.0 and TL.1 groups; it is proven that the mean ROA value of the TL.0 group is -2.0948 and the TL.1 group is 5.1085. Meanwhile, DER is sig. 0.024 is less than 0.05, meaning that there is a significant difference in the mean DER between the TL.0 and TL.1 groups; it is proven that the mean DER value of the TL.0 group is -15686.8936 and the TL.1 group is 90.3730.
Table 1. Descriptive statistical and independent samples test

<table>
<thead>
<tr>
<th>Group TL</th>
<th>Descriptive</th>
<th>Size</th>
<th>ROA</th>
<th>DER</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Total</td>
<td>N 98</td>
<td>Mean 27.7160</td>
<td>-12.0948</td>
<td>-15686.8936</td>
</tr>
<tr>
<td></td>
<td>Minimum 22.42</td>
<td>-285.00</td>
<td>-1542869.83</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum 32.35</td>
<td>60.72</td>
<td>1721.06</td>
<td></td>
</tr>
<tr>
<td>1 Total</td>
<td>N 124</td>
<td>Mean 29.3368</td>
<td>5.1085</td>
<td>90.3730</td>
</tr>
<tr>
<td></td>
<td>Minimum 23.59</td>
<td>-17.48</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum 33.89</td>
<td>29.40</td>
<td>2391.73</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N 222</td>
<td>Mean 28.6213</td>
<td>1.6583</td>
<td>-6874.3663</td>
</tr>
<tr>
<td></td>
<td>Minimum 22.42</td>
<td>-285.00</td>
<td>-1542869.83</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum 33.89</td>
<td>194.00</td>
<td>2391.73</td>
<td></td>
</tr>
</tbody>
</table>

Levene’s Test for Equality of Variances
- Sig. 0.120
- Sig. 0.000
- Sig. 0.024

Source: Processed secondary data (2021)

Table 2. Coefficients* equation 1

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
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<td>1</td>
<td>(Constant)</td>
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<td>-2.401</td>
</tr>
<tr>
<td>Size</td>
<td>2.450</td>
<td>1.042</td>
<td>0.157</td>
<td>2.351</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROA
R Square: 0.025
Adjusted R Square: 0.020
ANOVA: sig. 0.020

Source: Processed secondary data (2021)

Table 3. Coefficients* equation 2

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-48942.206</td>
<td>98766.480</td>
<td>-2.196</td>
</tr>
<tr>
<td>Size</td>
<td>1469.809</td>
<td>3442.216</td>
<td>0.029</td>
<td>2.027</td>
</tr>
</tbody>
</table>

a. Dependent Variable: DER
R Square: 0.001
Adjusted R Square: 0.004
ANOVA: sig. 0.040

Source: Processed secondary data (2021)

4.2 Hypothesis Test Results

Table 2 shows the t value of the size variable 2.351 and the value of sig. 0.020 is smaller than 0.05, meaning that the company's size has a positive and significant effect on profitability (ROA); thus, H1 is accepted. These results can be interpreted as if the company's size gets bigger, the profitability will increase because the larger the company's scale, the greater the resources that can be sold and a wider market share. The results of this study support the research of Alarussi and Alhaderi [16], Samosir [17], and Kartiningingsih and Daryanto [18].

Table 3 shows the t value of the variable size 2.027 and the value of sig. 0.040 is smaller than 0.05, meaning that the company's size has a positive and significant effect on leverage (DER); thus, H2 is accepted. These results can be interpreted as if the company's size gets bigger, the leverage will increase because the larger the company's scale requires larger financial sources, including debt and capital. The results of this study support the research of Kurshev and Strebulaev [21], Ramin et al. [22] and Albert et al. [23].

Table 4 shows the t value of the size variable 5.967 and the value of sig. 0.000 is smaller than
0.05, meaning that the company's size has a positive and significant effect on the timeliness of financial reporting; thus, H3 is accepted. This can be interpreted as the larger the company's size, the more accurate the financial reporting because the larger the scale the company can potentially have more sophisticated information technology that can process real-time information. The results of this study support the research of Ashton et al. [9], Owusu and Ansah [10] and Tinumbia et al. [11].

Table 4 shows the t value of the size variable 5.967 and the value of sig. 0.000 is smaller than 0.05, meaning that the company's size has a positive and significant effect on the timeliness of financial reporting; thus, H3 is accepted. This can be interpreted as the larger the company's size, the more accurate the financial reporting because the larger the scale the company can potentially have more sophisticated information technology that can process real-time information. The results of this study support the research of Ashton et al. [9], Owusu and Ansah [10] and Tinumbia et al. [11].

Table 4 also shows the t value of ROA 2.980 and the value of sig. 0.003 is smaller than 0.05, meaning that profitability has a positive and significant effect on Punctuality; thus, H4 is accepted. It can be interpreted that the higher the profitability, the more accurate the financial reporting because the increase in profitability is good news, so that it will be published soon. The results of this study support the research of Shafiy and Kamalluarifin [12], Surachyati et al. [14], Wulandari [19], and Dahmash [20].

Table 4 also shows the t value of DER 3.189E-7 and the value of sig. 0.000 is smaller than 0.05, meaning that leverage has a positive and significant effect on the timeliness of financial reporting; thus, H5 is accepted. This can be interpreted that the greater the company's leverage, the more time it takes for financial reporting because the increase in leverage is a positive signal for the confidence of creditors and investors so that the publication will be timely. These results support the research of Shafiyand Kamalluarifin [12] and Wulandari [19].

Table 5 shows the t value of 1.85059, and the p-value of 0.044 is smaller than 0.05 means that the profitability variable has a positive and significant effect in mediating firm size with timeliness; thus, H6 is accepted. This can be interpreted as increasing company size and profitability so that financial reporting will be more timely.

Table 6 shows the t value of 0.42699, and the p-value of 0.669 is greater than 0.05 means that the leverage variable does not mediate the effect of firm size on timeliness; thus, H7 is rejected. These results can be interpreted that an increase in company size, which can increase leverage, and the company's financial reporting is not timely.

### Table 4. Coefficients equation 3

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
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<td>.434</td>
<td>-4.644</td>
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<tr>
<td></td>
<td>Size</td>
<td>0.090</td>
<td>0.015</td>
<td>.367</td>
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<tr>
<td></td>
<td>ROA</td>
<td>.003</td>
<td>.001</td>
<td>.183</td>
</tr>
<tr>
<td></td>
<td>DER</td>
<td>3.189E-7</td>
<td>.000</td>
<td>.066</td>
</tr>
</tbody>
</table>

a. Dependent Variable: TL
R Square: 0.195
Adjusted R Square: 0.184
ANOVA: sig. 0.000

**Source:** Processed secondary data (2021)

### Table 5. Sobel test hypothesis 6

<table>
<thead>
<tr>
<th>Input</th>
<th>Test statistic</th>
<th>Std. Error</th>
<th>p-Value</th>
</tr>
</thead>
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<td>Sobel test:</td>
<td>1.85059441</td>
<td>0.0039717</td>
</tr>
<tr>
<td>b : 0.003</td>
<td>Aroian test:</td>
<td>1.79001533</td>
<td>0.00410611</td>
</tr>
<tr>
<td>S_a : 1.042</td>
<td>Goodman test:</td>
<td>1.91777194</td>
<td>0.00383257</td>
</tr>
<tr>
<td>S_b : 0.001</td>
<td>Reset all</td>
<td>Calculate</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Processed secondary data (2021)
5. CONCLUSION

The conclusion of this study: partially, the company’s size has a significant positive effect on profitability and leverage. Partially, company size, profitability and leverage have a significant positive effect on the timeliness of financial reporting. Profitability mediates the positive effect of firm size on the timeliness of financial reporting. Leverage does not mediate the effect of firm size on the timeliness of financial reporting.

The limitation of this study lies in the adjusted R square of 0.184, indicating that only 18.4% leverage, profitability, and firm size can explain its effect on the timeliness of financial reporting. In comparison, the remaining 81.6% is explained by other variables. Further research can add other variables: the reputation of a public accounting firm, audit opinion, liquidity, company age, ownership structure, Etc. The theoretical implications of this study’s results are expected to support signalling theory in explaining the influence of company size, profitability and leverage on the timeliness of financial reporting. Practical implications resulting from research refer for the manager to maximise the timeliness of financial reporting by considering company size, profitability and leverage, and investors as a reference in making investment decisions.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

11. Tinumbia ES, Djamhuri A, Subekti I. The Relationship Between Company Size and Audit Committee to Timeliness of Financial Reports with Audit Delay as Mediation.


