Profitability, Liquidity, Leverage Ratio Analysis of Internet Financial Reporting

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Authors’ contributions

This work was carried out in collaboration between both authors. Author DI designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Authors DI and IS managed the analyses of the study. Author IS managed the literature searches. Both authors read and approved the final manuscript.

ABSTRACT

This study examines the effect of Profitability, Liquidity, Leverage on Internet Financial Reporting and Company Size as moderating variables. The population in this study were various industrial sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the period 2016-2018, totaling 23 companies. The design in this study uses causal research, namely research that aims to determine the effect of the Profitability Ratio, Liquidity, Leverage, on Internet Financial Reporting and Company Size as moderating variables. The results of this study indicate that Profitability, Liquidity to Internet Financial Reporting cannot be moderated by Company Size, while Debt To Equity Ratio to Internet Financial Reporting can be moderated by Company Size. The effect of Profitability, Liquidity, and leverage on the Internet Financial Report, moderated by Company Size, produces different assessments. Partially, company size can strengthen the relationship between profitability, liability, leverage, and Internet Financial Reporting. And profitability and liquidity on Internet Financial Reporting cannot be moderated by company size, while leverage on Internet financial reporting can be moderated by company size.
Keywords: Profitability; liquidity; leverage; company size; internet financial report.

1. INTRODUCTION

The development of the internet creates a new way of delivering information on corporate financial statements, namely using the Internet Financial Reporting (IFR) system, Yuli Kurniawati [1]. According to a news source, Tribunjatim.com published on Sunday, April 7, 2019, in his article, the Chancellor of Unusa, Achmad Jazidie, said the industrial revolution 4.0 influenced the development of the main education world in the accounting profession. Accountants are required to have competent competencies in making financial statement information that is technically and technically qualified. So in the era of the industrial revolution 4.0 the accounting profession is also required to understand big data which stores a lot of information, not only financial data but also non-financial aspects. An accountant by profession must understand the internet financial reporting system or disclosure of corporate financial reporting through the company website is one of the systems that must be studied by the accountant profession.

The phenomenon of the increasing number of internet users indicates that companies can make it an opportunity to publish their financial reports. From the investor's side, it provides easy access to the information contained in the company. Meanwhile, from the company, it can reduce costs in terms of publishing financial reports or printing and sending them to investors. With the increasing number of internet users, most companies that have gone public use the internet to convey company information in the form of financial information or the form of company profiles and other information through the company's official website or personal site.

Internet Financial Reporting (IFR) can be seen as a medium of communication that is quite effective for external party information users such as investors, companies implementing IFR practices are currently being used by large companies that have sophisticated technology, one of which is applied by a manufacturing company, Febrian Rizki [2]. According to Abdillah [3], Internet Financial Reporting is one of the voluntary disclosures because no regulation regulates what content the company-owned website should provide. Most publicly listed or publicly traded companies have private websites that provide important company information. With the internet media, it can make it easier to use the information contained in the company to external parties to find out the company's business conditions, company finances, and company performance, Kurniawati [1]. Pernamasari R's research [4] shows that the quality of Internet Financial Reporting (IFR) in Indonesia is better than Malaysia and Singapore both as a whole and the quality of the components of Content, Timeliness, Technology, and Support for Use.

The liquidity ratio is an indicator of the company's ability to pay its short-term liabilities. If the condition of the company is not liquid, there is a tendency for the company to go bankrupt, Agustina Khikmawati [5]. The ratio is proxied using the Current Ratio, which is about the comparison between current assets and current debt. Agustina Khikmawati's research [5] shows that the liquidity ratio has an influence on Internet Financial Reporting but has a significant negative effect on Internet Financial Reporting (IFR).

The leverage ratio is a ratio that is an indicator of a company's capital structure. The high level of leverage can encourage management to conduct Internet Financial Reporting to take advantage of opportunities for good information from the company. According to research by Agustina Khikmawati [5], the leverage ratio has no significant effect on Internet Financial Reporting. Meanwhile, in research Riyan Andriyani [6] states that partially it has a positive effect on Internet Financial Reporting. In the research of Wahyuni P D and Mahliza F [7], it is stated that leverage does not affect Internet Financial Reporting (IFR).

The size of a company is a picture of the size or size of a company that can be measured by the amount of asset value, total sales, or the market value of the company's equity. According to Kurniawati [1], large companies are more highlighted in the capital market, which puts pressure on companies to disclose company information. According to research by Kurniawati (2018), the results of the relationship between company size have a significant positive effect, while Dina's research (2015) states that in her research the variable company size has no significant effect.

Pernamasari r research [4] shows that the quality of Internet Financial Reporting (IFR) in Indonesia is better than Malaysia and Singapore both as a
whole and the quality of the components of Content, Timeliness, Technology, and Support for Use.

Based on previous research, it was found that there were differences regarding inconsistent results regarding the effect of profitability, liquidity, leverage, on Internet financial reporting, and company size as a moderating variable in the company.

2. LITERATURE AND HYPOTHESIS DEVELOPMENT

2.1 Internet Financial Reporting

Internet Financial Reporting (IFR) can be seen as a medium of communication that is quite effective for external party information users such as investors, companies implementing IFR practices are currently being used by large companies that have sophisticated technology, one of which is applied by a manufacturing company, Febrian Rizki [2]. According to Abdillah [3], Internet Financial Reporting is one of the voluntary disclosures because no regulation regulates what content the company-owned website should provide. Most publicly listed or publicly traded companies have private websites that provide important company information. With the internet media, it can make it easier to use the information contained in the company to external parties to find out the company's business conditions, company finances, and company performance, Kurniawati [1].

It can be concluded that there is a tendency for management to determine how to maximize the goals of the company in practice Internet Financial Reporting as a medium for companies to convey all information on their accountability to external parties. As desired agency contracts (Febrian, 2018).

According to research by Malawat [8] states that Internet Financial Reporting can show a view that if a company reports its financial statements through the company's website, it can show that the company has good news, but vice versa if the company experiences delays or does not even publish on the company's official website, it will show bad news to the company.

This research uses the dependent variable using the OJK framework which consists of 34 items referring to the research of Utami and Wahyuni [9]. Each item in the company is given a value of "1" if one item of IFR disclosure is found on the company website and is given the number "0" if no item is found. disclosure of IFR on the company website. Profitability

The profitability ratio is a ratio to assess the company's ability to seek profit. This ratio also provides a measure of the level of management effectiveness of a company. This can be shown by the profit generated from sales and the company's investment income. It can be concluded that the use of this ratio can show the efficiency of the company [10].

According to Arfianda [11], profitability is an indicator of performance that is carried out by management in managing the company's wealth as indicated by the profits generated. In practice, there are several types of methods for calculating profitability ratios, namely the ratio of profit margin, return on assets (ROA) and return on equity (ROE) [10]. In this study, the method used to measure the profitability ratio is by using ROE, because ROE is a measure of management effectiveness in managing company-owned investments.

With this, it can be concluded that if the rate of return on investment shows the productivity of all company funds, both loan capital, and own capital. The smaller the resulting ratio, the less good or the inability of management to obtain ROE [10].

2.2 Liquidity

According to Ade Kemala Jaya and Verawati [12], the Liquidity Ratio shows the company's ability to fulfill its financial obligations that must be fulfilled, or the company's ability to meet financial obligations when collected. Financial analysis can use several liquidity ratios to assess the ability to pay obligations that must be paid immediately.

The liquidity ratio is a ratio that describes the company's ability to meet short-term obligations. And the function of the liquidity ratio is to measure the company's ability to meet its obligations that are due, in the form of obligations to external or internal parties of the company [10].

In this study, the Liquidity Ratio uses a quick ratio (Quick Ratio). According to Hanafi [13], this ratio uses assets that will turn into cash more
quickly and because inventory is considered the longest current asset to turn into cash, assets that are included other than cash include securities and receivables.

2.3 Leverage

According to Kurniawati [1] states that the Leverage Ratio is a measure of the number of assets financed using liabilities. And this Leverage ratio shows the company's ability to pay its obligations if the company is liquidated. As a result, if the company with a high proportion of leverage can show the greater the risk of the company because of the possibility that the company will not be able to pay off its obligations.

In practice, to cover the lack of funding requirements, companies have several choices of sources of funds that can be used. In this case, the leverage ratio is the ratio used to measure the extent to which the company's assets can be financed with debt. This means how much debt the company bears compared to the assets owned by the company [10].

In this study, the leverage ratio used is the Debt to Equity Ratio, which is a ratio used to assess all debt to all equity in order to find out any company capital that is used as debt collateral. Because for creditors the greater the ratio, it will be unprofitable because the greater the risk of failure that the company may bear [10].

2.4 Company Size

Firm size has a different effect on the firm value of a company. In terms of company size, it is seen from the total assets owned by the company, which can be used for company activities. In this case, the size of the company is assessed by the log of total assets. This Log Of Total Assets is used to reduce the significant difference between the size of the company that is too large and the size of the company that is too small, then the total asset value is formed into a natural logarithm, the conversion to a natural logarithm aims to make total asset data normally distributed, Meirawati [14].

2.5 Hypotasis

In this study, using five variables, namely the Profitability Ratio, Liquidity Ratio, Leverage Ratio, as an independent variable (Independent Variable) and Internet Financial Reporting as the dependent variable (Dependent Variable).

The frame of mind is made to make it easier to understand the influence of the Profitability Ratio, Liquidity Ratio, Leverage Ratio to Internet Financial Reporting (IFR) and Company Size as moderating variables.

2.5.1 Research hypothesis

H1: Profitability has a positive effect on Internet Financial Reporting
H2: Liquidity Ratio has a positive effect on Internet Financial Reporting (IFR)
H3: Leverage ratio has a positive effect on Internet Financial Reporting (IFR)
H4: Ukuran perusahaan memoderasi hubungan antara ratio profitabilitas, likuiditas, leverage berpengaruh terhadap internet financial reporting

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Fig. 1. Frame work
3. METHODS RESEARCH
This research uses the dependent variable using the OJK framework which consists of 34 items referring to the research of Utami and Wahyuni [9]. Each item in the company is given a value of "1" if one item of IFR disclosure is found on the company website and is given the number "0" if no item is found. disclosure of IFR on the company website.

The independent variable (independent variable) is a variable that affects or causes the change or the emergence of the dependent variable [15]. The independent variables used in this study are the Profitability Ratio, Liquidity Ratio, Leverage Ratio, and Company Size.

3.1 Population and Research Sample
Sampling in this study using purposive sampling technique where purposive sampling is a technique of taking samples or data sources with certain considerations in order to obtain research samples that match the criteria in accordance with the specified. The sample criteria that will be used are:

2. Manufacturing companies in various industrial sub-sectors that did not experience losses in the 2018 research

3.2 Data Analysis Method
The method of analysis used in this study is the Statistical Package for Social Sciences (SPSS) 20 for windows. The data analysis methods that can be used in this study are as follows:

3.3 Descriptive Statistics
Descriptive statistics are used to describe the data in this study which consists of Profitability (ROE), Liquidity, Leverage, Activity Ratio, Company Size, and Internet Financial Reporting (IFR). The measurements used in this study are minimum value, maximum value, mean and standard deviation [16].

3.4 Hypothesis Testing
3.4.1 Significance of individual parameters (t statistical test)
The t statistical test shows how far the influence of one explanatory/independent variable individually in explaining the variation of the dependent variable [16].

Table 1. Research sample details

<table>
<thead>
<tr>
<th>No</th>
<th>Information</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Various industrial sub-sector manufacturing companies listed on the IDX in 2016 - 2018.</td>
<td>46</td>
</tr>
<tr>
<td>2</td>
<td>Various industrial sub-sector manufacturing companies that experienced losses in the 2016 - 2018 research period</td>
<td>(18)</td>
</tr>
<tr>
<td>3</td>
<td>Manufacturing companies in various industrial sub-sectors that are delisting and just IPO</td>
<td>(5)</td>
</tr>
<tr>
<td></td>
<td>Number of Samples</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Observation Year</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The total amount of data during the study period</td>
<td>69</td>
</tr>
</tbody>
</table>

Source: www.idx.co.id (2019) processed data

3.4.2 Multiple linear regression analysis
In this study, multiple regression analysis was used to test the effect of independent variables specifically on the dependent variable [16]. This study uses five independent variables, one dependent variable, and as stated in the regression equation below:

\[
IFR = \alpha + \beta_1 \text{ROA} + \beta_2 \text{CR} + \beta_3 \text{DER} + \beta_4 \text{SIZE} + e
\]

Keterangan:

IFR: Internet financial Reporting
4. RESULTS AND DISCUSSION

4.1 Analysis Results

4.1.1 Descriptive statistics

From the results of descriptive statistical tests, information was obtained that the Internet Financial Reporting variable has a value range from 0.38 to 0.88 which is the lowest value. The average value of Internet Financial Reporting is 0.6460 and the standard deviation is 0.11566.

The profitability variable with proxy roa has a value range from 0.00035 to 0.31783 which is the lowest value. The average value of the firm value is 0.1051 and standard deviation of 0.08305.

The liquidity variable with a proxy cr has a value range from 0.64860 to 5.4929 which is the lowest value. The average liquidity value is 2.2434 and the standard deviation is 1.28692.

The leverage variable with proxy der has a value range from 0.0305 to 2.52230 which is the lowest value. The average value is 0.53603 and the standard deviation is 0.51746.

The firm size variable with proxy size has a value range from 25.21560 to 33.47370 which is the lowest value. The average value is 28.34573 and the standard deviation is 1.65932.

4.2 Hypothesis Testing

4.2.1 Model 1 regression equation

This model is used to test the effect of Profitability, Liquidity, and Leverage on Internet Financial Reporting. The regression model is systematically formulated as follows:

$$ IFR = 0.652 + 0.089 \cdot ROA - 0.011 \cdot CR + 0.018 \cdot DER + e $$

Where:

a. $\beta_0 = 0.652$; meaning that if Profitability, Liquidity, and Leverage are worth 0, then Internet Financial Reporting is worth 0.652.

b. $\beta_1 = 0.089$; it means that if Profitability increases by 1, then Internet Financial Reporting also increases by 0.089.

c. $\beta_2 = -0.011$; this means that if Liquidity increases by 1, then Internet Financial Reporting will decrease by 0.011.

d. $\beta_3 = 0.018$; it means that if Leverage increases by 1, then Internet Financial Reporting will also increase by 0.011.

The T-test in model 1 shows that the t value of Profitability (0.508), Liquidity (-0.923), and Leverage (0.599) is smaller than the value of the t table for model 1 which is 2.75. Also, the resulting significance values are Profitability (0.613), Liquidity (0.359), and Leverage (0.551) which are greater than 0.05. So it can be

### Table 2. Descriptive statistical analysis

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>0.38240</td>
<td>0.88240</td>
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<td>0.11566496</td>
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<tr>
<td>Profitabilitas</td>
<td>69</td>
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<td>0.31783</td>
<td>0.1051061</td>
<td>0.08305869</td>
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<tr>
<td>Likuiditas</td>
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<td>5.49290</td>
<td>2.2434246</td>
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<tr>
<td>Leverage</td>
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<td>2.52230</td>
<td>0.5360333</td>
<td>0.51746461</td>
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<tr>
<td>Ukuran Perusahaan</td>
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<td>25.21560</td>
<td>33.47370</td>
<td>28.3487348</td>
<td>1.65932729</td>
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<tr>
<td>Valid N (listwise)</td>
<td>69</td>
<td></td>
<td></td>
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</table>
Table 3. Model 1 regression coefficient

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
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<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
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<tr>
<td>1</td>
<td>(Constant)</td>
<td>.652</td>
<td>.040</td>
<td>16,394</td>
<td>,000</td>
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<td>Profitabilitas</td>
<td>.089</td>
<td>.175</td>
<td>.064</td>
<td>.508</td>
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<td>Likuiditas</td>
<td>-.011</td>
<td>.012</td>
<td>-.122</td>
<td>-.923</td>
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<td></td>
<td>Leverage</td>
<td>.018</td>
<td>.030</td>
<td>.081</td>
<td>.599</td>
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</table>

a. Dependent Variable: IFR

Table 4. Model 2 regression coefficient

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<th>Coefficientsa</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.796</td>
<td>.165</td>
<td>-4,818</td>
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<td></td>
<td>Ukuran Perusahaan</td>
<td>.051</td>
<td>.006</td>
<td>.730</td>
<td>8,741</td>
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</table>

a. Dependent Variable: IFR

Table 5. Model 3 regression coefficient

<table>
<thead>
<tr>
<th>Coefficientsa</th>
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<th>Unstandardized Coefficients</th>
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<td>B</td>
<td>Std. Error</td>
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<tr>
<td>1</td>
<td>(Constant)</td>
<td>.650</td>
<td>.030</td>
<td>21,578</td>
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<td></td>
<td>Profitabilitas</td>
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<td>-3.071</td>
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<tr>
<td></td>
<td>Likuiditas</td>
<td>-.349</td>
<td>.164</td>
<td>-3.885</td>
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<tr>
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<td>Leverage</td>
<td>-.537</td>
<td>.359</td>
<td>-2.401</td>
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<td>Profitabilitas.Uk Perusahaan</td>
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<td>.093</td>
<td>3.059</td>
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<td>Likuiditas.Uk Perusahaan</td>
<td>.012</td>
<td>.006</td>
<td>3.792</td>
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<td>Leverage.Uk Perusahaan</td>
<td>.021</td>
<td>.013</td>
<td>2.552</td>
<td>1.598</td>
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</tbody>
</table>

a. Dependent Variable: IFR

concluded that partially Profitability, Liquidity, and Leverage do not affect Internet Financial Reporting.

4.2.2 Model 2 regression equation

This model is used to examine the effect of Company Size as proxied by Size on Internet Financial Reporting. The regression model is systematically formulated as follows:

$$ IFR = -0.796 + 0.051\text{SIZE} + e $$

Where:

a. $\beta_0 = -0.796$; this means that if the company size variable is 0, then Internet Financial Reporting is -0.796

b. $\beta_4 = 0.051$; it means that if the company size variable increases by 1 person and the other variables are constant, then Internet Financial Reporting will increase by 0.051.

The T-test on model 2 of Company Size shows that the t value of 8.741 is greater than the value of the t table for model 2 of 2.75. Also, the resulting significance value is 0.000 which is greater than 0.05. So it can be concluded that partially company size affects Internet Financial Reporting.

4.2.3 Model 3 regression equation

This model is used to examine the effect of Profitability, Liquidity, and Leverage on Internet
Financial Reporting, moderated by the size of the company proxied by SIZE. The regression model is systematically formulated as follows:

$$IFR = 0.650 - 4.277 \text{ROA} - 0.349 \text{CR} - 0.537 \text{DER} + 0.149 \text{Profitabilitas*Uk.Perusahaan} + 0.012 \text{Likuiditas*Uk.Perusahaan} + 0.021 \text{Leverage*Uk.Perusahaan} + \epsilon$$

Where:

a. $\beta_5 = 0.149$; this means that if the company size variable increases by 1 percent, it will strengthen the profitability tendency of 0.149.

b. $\beta_6 = 0.012$; this means that if the company size variable increases by 1 percent, it will strengthen the Liquidity tendency of 0.012 units.

c. $\beta_7 = 0.021$; this means that if the company size variable increases by 1 percent, it will strengthen the Liquidity tendency of 0.012 units.

The T-test in model 3, Profitability which is moderated by Firm Size shows the resulting significance value of 0.114 which is greater than 0.05. So it can be concluded that partially the effect of Profitability on Internet Financial Reporting can be strengthened insignificantly by Company Size as a moderating variable.

The T-test in model 3, Liquidity which is moderated by Firm Size shows the resulting significance value of 0.041 which is smaller than 0.05. So it can be concluded that partially the effect of Liquidity on Internet Financial Reporting can be strengthened significantly by Company Size as a moderating variable.

The T-test in model 3, Leverage which is moderated by Firm Size shows the resulting significance value of 0.115 which is greater than 0.05. So it can be concluded that partially the influence of Leverage on Internet Financial Reporting can be strengthened insignificantly by Company Size as a moderating variable.

5. CONCLUSION AND SUGGESTION

5.1 Conclusion

From the results of this study, the following conclusions can be drawn:

1. Profitability and Leverage do not have a significant effect on Internet Financial Reporting with a positive regression coefficient, in other words, profitability and leverage can increase the use of Internet Financial Reporting, while Leverage has no significant effect on Internet Financial Reporting with negative regression coefficient direction, in other words, liquidity can reduce the use of Internet Financial Reporting.

2. Company size has a significant effect on Internet Financial Reporting. Simultaneously, Company Size can increase the use of Internet Financial Reporting.

3. Partially, the influence of Profitability, Liquidity, and Leverage on Internet Financial Reporting, which is moderated by Company Size, is as follows:

   a. The influence of Profitability on Internet Financial Reporting can strengthen, although not significant, with Company Size as a moderating variable. Thus Company Size cannot moderate the relationship between Profitability and Internet Financial Reporting.

   b. The Effect of Liquidity on Internet Financial Reporting can be strengthening and significant with Company Size as a moderating variable. Thus Company Size cannot moderate the relationship between Liquidity and Internet Financial Reporting.

   c. The influence of Leverage on Internet Financial Reporting can strengthen, although not significant, with Company Size as a moderating variable. Thus Company Size can moderate the relationship between Leverage and Internet Financial Reporting.

5.2 Suggestion

For further research, it is expected to add other variables. Besides, further researchers can also increase the sample size by considering the object of research and sample criteria as well as possible so that not too many samples are released in the sample selection process.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Kurniawati Y. Faktor-Faktor Yang Berpengaruh Pada Internet Financial


