The Effect of Earnings Quality on Financial Performance in Indonesia: is the State-Owned Bank better than Private Bank?

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Abstract
The primary objective of this study is to analyze the effect of earnings quality on financial performance of banks in Indonesia. The study also aims to compare in which type of banks the independent variable has more influence on the dependent variable, whether state-owned or private banking. Indicators for earnings quality are discretionary accruals and earnings persistence while measurements for financial performance are return on assets, return on equity, rate return on loans and total asset turn over. Eight conventional banks compared in this study are four government banks and four private banks. The authors apply Partial Least Square Multigroup Technique upon, research data from 2006 – 2018 period. The results indicate that earnings quality has a positive significant influence on financial performance of the banks. Apparently, the effect of earnings quality on financial performance of private banks is greater than that of state-owned banks, showing that the types of bank moderates the influence of earnings quality on the financial performance. This study recommends the importance of improving earnings quality of state-owned banks. Furthermore, this study suggest that government companies should avoid earnings management in order to create good and high quality financial performance, especially in the banking sector in Indonesia.

Keywords
Earnings Quality; Financial Performance; State-Owned Bank; Private Bank.

Introduction
The Statement of Financial Accounting Concepts (SFAC; No.1, 1978) explains that the main concern of financial reporting is information about earnings and its components. Users of financial statements can use earnings information to examine the performance of management, estimate earnings power, predict future earnings, and assess the risk. Because profits are often used as a reference for investors in investing, the reported profits, including for banks, must be of high quality. Quality profit is profit that is useful in making decisions of its users.

One of bank performance measurements is the number of qualified earnings. Earnings may have such a high quality if the bank can achieve the earnings in
persistent and sustained basis, not just as transitory earnings. It is common to measure the persistense of earnings quality, that is from the perspective of its usefulness in decision making. The higher the amount of earnings that contributes to value the equity, the higher the quality of the earnings. The second measurement of earnings quality is the ability of current earnings as the basis to predict future earnings. In this case, high-quality earnings are earnings that have high ability to predict future earnings (Alhadad and Al-Own, 2017).

Furthermore, Belloray et al, (2005) suggested that earnings quality can be seen from the level of variability, where with a high level of variability means low profit quality. Earnings quality is a positive point as a bank’s added value, but through the importance of earnings information for users of the financial statements it allows bank management to under take actions that can make financial statements look better. Management attempts to manipulate earnings to achieve certain goals such as those targeted or expectations set by analysts or figures in line with smoothing the actual income that ends with fixed profits (Al-Halabi and Al-Abbabi, 2014). This happens because the management has the authority to determine policies in preparing financial statements in order to achieve certain objectives. The actions taken by management often conflict and deviate from the goals of the bank, one of which is earnings management. This action makes bank earnings information less qualified (Hapsari and Santoso, 2015)

Sugiri (1998) defined earnings management as manager’s actions to increase reported earnings today. Surifah (1999) provided an opinion on the impact of earnings management on the credibility of financial statements. According to Surifah (1999), earnings management can reduce the credibility of financial statements when used for decision making, because earnings management is a form of manipulation of financial statements that are the target of communication between managers and external parties of the company. Earnings quality itself is the actual profit without earnings management in earnings information. The existence of earnings management practices conducted by management will result in lower quality of earnings from financial reporting (Siallagan, Hamonangan and Machfoedz, 2006).

Agency theory is the basis on which the theory explains the working relationship between company owners (shareholders) and management. Agency theory exists when principals (shareholders) employ other people to manage the company. Agency theory separates principals (shareholders) from management (agents), (Ulum, 2015). In practice, in a company, the background and desires of shareholders can be different from the wishes of the owner of the company. This condition will cause a conflict of interest until finally an agency problem arises. In managing a company, management has and knows more complete and detailed company information compared to shareholders.

Earnings management theory is a derivative of Agency Theory. There are two theories of earnings management, namely informatic earnings management and opportunistic earnings management. Opportunistic earnings management will negatively affect company performance, while informative earnings management will improve company performance (Scott, 2009). Based on informative earnings management theory, managers will use their discretionary to communicate their beliefs based on the
information they have as insiders (private information) on the prospects for future corporate profits (Tucker and Zarowin, 2006). There are two motives that underlie managers to manage earnings. First, if management reports earnings that are not in line with investor expectations, the company's performance will fall. Second, only companies with good prospects dare to maximize profits this year with the risk of taking a portion of the profit in the following year, because if in the following year the profit turns out to be lower than the company will be harmed by this action (Tucker and Zarowin, 2006).

This study examines scrutinize at the effect of earnings quality on financial performance, especially banking performance in Indonesia. The object of research is eight conventional banks in Indonesia, consisting of four state-owned banks and four private banks. In Indonesia there are two types of bank based on share ownership. We called it state-owned bank, and private bank. State-owned bank is a bank which at least 51% of its shares owned by The Republic of Indonesia, while private bank is a bank which its ownership is owned by private organization. Researchers used purposive sampling as a bank sampling technique. State-owned bank were taken in a total of 4 banks, while 4 private banks were selected by researchers based on criteria such as the amount of capital ownership. Eight banks that became the sample of this study are banks that are included in the category of banks that have core capital of over 5 billion rupiah. The selection of banks to be sampled was conducted by researchers so that the gap or difference between state-owned and private bank being sampled did not differ greatly, so that is was relevant and suitable for examining the differences between banks of this type. Based on the criteria for acceptance of the sample, 8 banks were taken as samples.

### Table 1. List of Companies

<table>
<thead>
<tr>
<th>No</th>
<th>Issuer Code</th>
<th>Companies</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BBNI</td>
<td>PT Bank Negara Indonesia Tbk</td>
<td>State-Owned Banks</td>
</tr>
<tr>
<td>2</td>
<td>BBRI</td>
<td>PT Bank Rakyat Indonesia Tbk</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>BBTN</td>
<td>PT Bank Tabungan Negara Tbk</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>BMRI</td>
<td>PT Bank Mandiri Tbk</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>BBCA</td>
<td>PT Bank Central Asia Tbk</td>
<td>Private Banks</td>
</tr>
<tr>
<td>6</td>
<td>BNGA</td>
<td>PT Bank CIMB Niaga Tbk</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>BDMN</td>
<td>PT Bank Danamon Tbk</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>BBKP</td>
<td>PT Bank Bukopin Tbk</td>
<td></td>
</tr>
</tbody>
</table>

### Related Work

There are some researches about the influence of earnings quality over financial performance. Daraby, Rad & Ghadiri in 2012, highlight that the increased number of fraud followed by the bankruptcy of several large companies has raised a concern about
the health of earnings quality. Earnings quality is an important aspect in evaluating the financial health of a corporate entity because earnings quality refers to the ability of reporting earnings to reflect the actual income of a company.

In addition, Al-Hadad and Al-Own (2017) state that the negative impact of earnings management continues in the following years. The results of the analysis of this study emphasize the important implications for many stakeholders who aim to improve the quality of financial reporting in the banking industry. Machdar, Manurung & Murwaningsari (2017) utilized data from Indonesia and Singapore for years 2004-2013. This research investigate and conclude that earnings quality positively have an impact on company’s performance.

While Li in 2014, stated that company’s performance information can be affected by factors such as earnings quality. Furthermore, Li (2014) mentioned that earnings quality is one of the important indicators for accurately evaluating the value of a company. Huynh (2018), analyze the connection between earnings quality and financial performance, and observe in 2012 to 2015, 194 firm-year of Vietnamese publicly listed companies list voted by Forbes Vietnam. Huynh (2018) emphasize that earnings quality has a significant effect on financial performance.

In agreement with previous studies as mentioned before, trend of research recommended earnings quality as the most significant factors that effect to the financial effectiveness of companies (Gaio & Raposo, 2011). That research stated that a quality of earnings is supposed to allow companies to win public gain goodwill and confidence, so be able to achieve competitive advantage and superior subsequent performance (Latif et al, 2017).

But, on the other hand, Ma & Ma (2017) have different result than the other previous study. Ma & Ma describe that low earnings quality is associated with high company performances in state-owned companies in China. On the contrary, the companies less possibly manipulate earnings reporting since they are afraid of suffering reputational damage from low quality of earnings (Cao, et al., 2012).

Research by Liu Wang & Kenneth Yung (2011) looked at the effect of company ownership in earnings management in a company. In contrast to the conventional theory that state ownership is the root of corporate inefficiency, this study found lower levels of revenue management among State-Owned companies than private companies in China. Further investigation shows that the protection of state enterprises by the government may have played an important role in reducing pressure on managers to manipulate company-specific information. In addition, research shows that the difference in earnings quality between State-Owned companies and private companies is less clear because the economy has been controlled by the market.

Based on the problem and research objectives, the hypothesis in this study is:

**H1: Earnings Quality has a significant effect on financial performance**

**H2: There a significant differences in Earnings Capital between stated-owned banks and private banks in Indonesia**

**Methodology**

In order to explore the relationship between variables, this study applies PLS analysis
that can analyze both. The direct and/or indirect influences of a set of independent (exogenous) variables on the dependent variable (endogenous), where both exogenous and endogenous variables are unobserved variables (latent variables). The study also uses the moderation test to determine whether the moderator variable is appropriate to moderate the effect of exogenous variables on endogenous variables, and to determine which categories that have stronger moderation on the influence of exogenous variables on endogenous variables.

The study applies Fisher’s Z-test method to examine the moderation effect. If the value of | Z-test | ≥ | Z-table | (1.96), then the moderating variable is stated to be able to significantly moderate the effect of exogenous variables on endogenous variables. The proxies for earnings quality are discretionary accruals and earnings persistence. Following Beaver and Engel (1996), the formula for discretionary accruals is as follows.

a. Find the estimated coefficient values by performing the following regression equation.

\[
TA_{it} = \beta_0 + \beta_1 NI_{it} + \beta_2 CFO_{it} + \beta_3 Loan_{it} + \beta_4 NPA_{it} + \beta_5 \Delta NPA_{it+1} + \epsilon_t
\]

Source: Beaver dan Engel (1996)

Note:
- \( TA_{it} \) = Total accrual (NI_{it} – CFO_{it})
- \( NI_{it} \) = Net income of Company i in t period
- \( CFO_{it} \) = cash flow from company’s I operational activity in t period
- \( \Delta \) = Loans charge
- \( Loan_{it} \) = Loans outstanding
- \( NPA_{it} \) = Non performing assets, shows the comparison of problematic productive assets with their total productive assets.

\( \Delta NPA_{it+1} \) = the different of non performing assets one year ahead with current non-performing assets t.

b. Calculating the value of non-discretionary accruals by substituting the estimated coefficient values according to the following equation.

\[
NDA_{it} = TA_{it} - (\beta_3 + \beta_4 + \beta_5 \Delta NPA_{it+1})
\]

Source: Beaver dan Engel (1996)

c. Calculating discretionary accruals value with the following formula:

\[
DA_{it} = TA_{it} - NDA_{it}
\]

Source: Beaver dan Engel (1996)

TA \(_{it}\) is total accrual calculated by the allowance for possible losses on earning assets (PPAP), NDA\(_{it}\) is non-discretionary accruals and DA\(_{it}\) is discretionary accruals.

Second, earnings quality variable is measured through earnings persistence. Earnings persistence captures income sustainability, and as such, persistent income is seen as desirable because they are recurring (Francis et al. 2004). Earnings consistency is measured through Sloan's model with the following formula.

\[
E_{it} = \beta_0 + \beta_1 E_{it-1} + \epsilon_t
\]

Source: Beaver dan Engel (1996)

Where \( E_{it} \) is the accounting profit (earnings) of company \( i \) in year \( t \), whereas \( E_{it-1} \) is the accounting profit (earnings) of company \( i \) before year \( t \). then \( \beta_0 \) is a constant and \( \beta_1 \) becomes the persistence of accounting earnings. If the accounting profit regression coefficient is \( (\beta_1) > 1 \), then the persistent high. If the earnings regression coefficient is
( \beta_{iit} > 0 \), then it is persistent. Conversely, if the earnings regression coefficient ( \beta_{iit} ) \leq 0 then it is fluctuating and not persistent (Francis et al. 2004). Data is obtained from the Indonesian banking financial statements and data is presented by naming net income in the bank's annual report.

Every company, including the financial sector, certainly has certain goals to be achieved both in financial and non-financial terms. Financial performance is still one of the most widely used measures of company performance, especially in banks as a financial institution. Financial performance variables are measured through several proxies as follows.

a. Total Assets Turn Over
Total Assets Turnover illustrates the efficient use of the company's overall assets in generating certain sales volumes, which ratio is measured by the formula:

\[
\text{Total Asset Turn Over} = \frac{\text{Sales}}{\text{Total Asset}}
\]

Source: Kasmir (2016)

b. Return on Assets
Return on assets is a ratio that shows the results (return) on the number of assets used in the company. ROA ratio is measured by the formula:

\[
\text{ROA} = \frac{\text{earning before tax}}{\text{average total asset}}
\]

Source: SE BI 13/24/DPNP

c. Rate Return on Loan
Rate of return on loan is the ratio of analysis used to measure the ability of a management to manage its credit activities or often also referred to as the ratio between financing income and total financing distribution. The formula used is as follows (Kasmir, 2017).

\[
\text{RRL} = \frac{\text{earning after interest and tax}}{\text{total loan}} \times 100
\]

Source: Kasmir (2016)

Results and Discussion
The authors calculate the weight value of each indicator to evaluate the validity of the formative model. An instrument is declared valid if the value of \text{t} statistics \geq \text{t} table (1.96) or probability \leq level of significance ( \alpha ) \leq 5\%. The results of testing the validity of the formative model are presented in the table 2.

<table>
<thead>
<tr>
<th>Table 2. Validity Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>Earnings Quality</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Financial Performance</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Based on the table, it can be seen that all indicators that measure the variables of intellectual capital and earnings quality produce t-statistics values greater than $t_{table}$ (1.96) or the probability is smaller than the level of significance $(\alpha) \leq 5\%$. Thus the indicators that measure the variables of intellectual capital and earnings quality are declared valid. On the other hand, on financial performance variables, indicators of TATO, ROA and ROE produce t-statistics values greater than $t_{table}$ (1.96) or the probability is smaller than the level of significance $(\alpha) \leq 5\%$. Thus the TATO, ROA and ROE indicators are declared valid to measure financial performance variables, but the RRL indicator produces t-statistics smaller than $t_{table}$ (1.96) or the probability is greater than the level of significance $(\alpha) \leq 5\%$. Thus the RRL indicator is declared invalid to measure financial performance variables.

Indicators measuring the variable earnings quality can be seen through the Table 3.

**Table 3. Earnings Quality Variable Measurement**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings Quality</td>
<td>DA</td>
<td>0.248</td>
</tr>
<tr>
<td></td>
<td>EP</td>
<td>0.975</td>
</tr>
</tbody>
</table>

The earning quality variable measurement model is as follows:

$$\text{EQ} = 0.248 \text{DA} + 0.975 \text{EP}$$

Based on the measurement model above, it is known that the measurement of discretionary accruals (DA) indicators on earning quality variables produces a weight value of 0.248. This means that discretionary accruals (DA) indicators measure earnings quality variables positively. Thus, the higher discretionary accruals (DA) indicator can increase the earnings quality variable.

The measurement of earnings presence indicator (EP) to the earning quality variable produces a weight value of 0.975. This means that the earnings presence indicator (EP) positively measures earnings quality variables. Thus, the higher earnings presistence (EP) indicator can increase the earnings quality variable.

The earning quality variable measurement model also informs us that the earnings presence (EP) indicator has the greatest loading value of 0.975. This means that the earnings presence indicator (EP) is the most dominant indicator in measuring earnings quality variables.

Indicators measuring the financial performance variables can be seen through the Table 4.
The financial performance variable measurement model is as follows:

\[ FP = -0.173 \, \text{TATO} + 0.525 \, \text{ROA} + 0.372 \, \text{ROE} + 0.125 \, \text{RRL} \]

Based on the measurement model above, it is known that the measurement of the total assets turns over (TATO) indicator to the financial performance variable produces a weight value of -0.173. This means that the total assets turn over (TATO) indicator measures the financial performance variable negatively. Thus, the higher the total assets turn over (TATO) indicator can reduce the financial performance variable. Measurement of return on assets (ROA) indicators on financial performance variables produces a weight value of 0.525. This means that the return on assets (ROA) indicator measures the financial performance variables positively. Thus, the higher the return on assets (ROA) indicator can increase the financial performance variable. Measurement of the rate of return on loan (RRL) indicator to the financial performance variable produces a weight value of 0.124. This means that the rate of return on loan (RRL) indicator measures the financial performance variable positively. Thus, the higher the rate of return on loan (RRL) indicator can increase the financial performance variable. The measurement model of financial performance variables also informs us that the return on assets (ROA) indicator has the greatest loading value of 0.525. This means that the return on assets (ROA) indicator is the most dominant indicator in measuring financial performance variables.

The authors then test to what extent the influence of exogenous variables on endogenous variables is. If the value of tstatistics ≥ ttable (1.96) or probability ≤ level of significance (α) ≤ 5% then the significant influence of exogenous variables on endogenous variables is stated. The results of the significance test can be known through the table 5.

<table>
<thead>
<tr>
<th>Eksogen</th>
<th>Endogen</th>
<th>Path Coefficient</th>
<th>SE</th>
<th>T Statistics</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earning Quality</td>
<td>Financial Performance</td>
<td>0.317</td>
<td>0.047</td>
<td>6.763</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 4. Financial Performance Variable Measurement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Performance</td>
<td>TATO</td>
<td>-0.173</td>
</tr>
<tr>
<td></td>
<td>ROA</td>
<td>0.525</td>
</tr>
<tr>
<td></td>
<td>ROE</td>
<td>0.372</td>
</tr>
<tr>
<td></td>
<td>RRL</td>
<td>0.124</td>
</tr>
</tbody>
</table>
The effect of earnings quality on financial performance results in a T statistic of 6,763 and a probability of 0.000. The test results show that the value of T statistics > 1.96 or probability < level of significance (α) ≤ 5%. This means that there is a significant effect on earnings quality on financial performance.

The moderation test is intended to determine whether the moderator variable is able to moderate the effect of exogenous variables on endogenous variables or not, and determine which categories are able to moderate more strongly on the influence of exogenous variables on endogenous variables. The moderation test uses the Fisher’s Ztest method. Test criteria state that if the value of |Ztest| ≥ |Ztable| (1.96), the moderating variable is stated to be able to significantly moderate the effect of exogenous variables on endogenous variables. The following table show the result of significant test. Testing of bank type moderation on the effect of earnings quality on financial performances is known through the following Table 6.

**Table 6. Testing of Bank Type Moderation**

<table>
<thead>
<tr>
<th>Bank Type</th>
<th>Effect</th>
<th>Coefficient</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Earning Quality --&gt; Financial Performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State-Owned Bank</td>
<td></td>
<td>0.011</td>
<td>0.025</td>
</tr>
<tr>
<td>Private Bank</td>
<td></td>
<td>0.374</td>
<td>0.056</td>
</tr>
<tr>
<td><strong>Moderation Testing</strong></td>
<td></td>
<td></td>
<td><strong>0.061</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Z-Test</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>-5.943</strong></td>
</tr>
</tbody>
</table>

The moderation test on the effect of earning quality on financial performance results in a Ztest of -5.943. The test results show that the value of |Ztest| > 1.96. This means that bank types are greater than the cut off 1.96, moderating the effect of earnings quality on financial performance. Then the coefficient of the effect of earning quality on financial performance at state-owned banks lower than the coefficient of the effect of earning quality on financial performance at the private bank. This shows that the effect of earnings quality on financial performance at private banks is greater than at state-owned bank.

Characteristically, although private banking is included in the financial sector and is highly regulated, it is different with state-owned bank, which its shares 51% owned by The Republic of Indonesia. The regulations set for state-owned bank are more stringent that those of private bank. Private bank that are regulated by regulations are not as strict as state-owned bank, presenting their financial statements with better quality and less do manage on their earnings. This is in line with the results of results of research that earnings quality of private bank is better than state-owned.

**Conclusion and Future Scope**

This study examines at the effect of earnings quality on financial performance, in Indonesian banking. In contrast to Ma &
Ma’s (2017) research, shows that low earnings quality is associated with high company performance, this study indicate that earnings quality has a positive significant on financial performance. This study is in line with the research results of Darabi, Rad & Ghadiri (2012) and Alhadab & Al-Own (2017).

The test results of this study indicate that Earnings Quality has a significant effect on financial performance of banks in Indonesia. This indicates that earnings quality are important indicators for corporate stakeholders, for investors to provide investment, to the effect of stock prices so that reported earnings must be quality earnings. The results of this research in line with earning management theory, while according to Tucker & Zarowin (2006), if a company management performs earnings management in the form of inappropriate earnings reporting, it will cause the company’s performance to decline.

Meanwhile, the results of bank type moderation show that the effect of earnings quality on financial performance of private banks is greater than that of state-owned banks. This study is slightly different from previous research from Liu Wang & Kenneth Yung (2011), where this study has a firm result that there is a difference between the effect of earnings quality on financial performance of banks. Earnings quality in private banks is more influential on financial performance than state-owned banks may be due to the financial reporting characteristics of private banks which are not as strict as state-owned banks. Private banks which are of course still guarded by the government, but some of the policies taken can be decided by the owner of the company without having to wait for government regulations.

This study recommends the importance of applying earnings quality in banks, especially in state-owned banks. Furthermore, this study suggests that government companies avoid earnings management in order to create good and high quality financial performance, especially in the banking sector in Indonesia.

Notes on Contributors

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References


perusahaan’. Simposium Nasional Akuntansi IX. Padang. Hal 1-23


