Abstract—The main purpose of this study is to examine earnings quality and their impact on the financial performance of Indonesian state-owned banks from the period of 2006 up to 2018. The 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. This research covers 4 Indonesian state-owned banks. The data for the study were analyzed using Partial Least Square (PLS). Apparently, testing the effect of earnings quality in Indonesian state-owned banks reveals not a significant result, as unexpected. The result of this study slightly different from other previews research. The mainstream of theoretical asserts that earnings quality has a positive effect on financial performance. This study shows although earnings quality doesn’t have a significant effect on financial performance, it doesn’t mean that companies can make earnings management on their earnings. This study also recommends that companies not only pursue company profit but also keep other factors to obtain good company performance for the short and long term.

Index Terms—Earnings quality, financial performance, Indonesian state-owned bank.

I. INTRODUCTION

Financial performance is an evaluation of company performance, including a bank. Banks performance, especially on their performance, is an indicator that describes the conditions that occur in banks in terms of the economy, where the better the bank's financial performance, it can be assumed that the bank can manage and use all of its resources as effectively and efficiently as possible [1]. The indicator that becomes the main note is earnings. Bank earnings indicate the ability of banks to profit and become a bank indicator in fulfilling obligations for funders, besides profit is used in many aspects by external and internal users as signals for performance [2].

The data in Figure 1 shows the earnings growth from 2015 up to 2018, which in each period shows a positive growth rate [3]. It was noted that in 2015 up to 2018 period, the average annual net profit growth reached 13.1% [4].

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 a persistent and sustained basis, not just as transitory earnings. It is common to measure the persistence of earnings quality, which is from the perspective of its usefulness in decision making. The higher the number 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 a high ability to predict future earnings [5].

Users of financial statements can use earnings information to determine management performance, predict future earnings and assess the risk of a bank. Because earnings are often used as a reference for investors in investing the reported bank’s profits must be high of quality. Earnings quality is earnings that are useful in making decisions of its users. Earnings quality becomes a positive point as a bank’s added value, but through the importance of earnings information for users of the financial statements it allows the bank management to take actions that can make financial statements look better. Management’s effort 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 [6]. In agency theory, it has been said that the interest and desires of managers can conflict with the interest of the company’s shareholders [7].

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 agent to manage the company. Agency theory distinguish principals (shareholders) from management (agents), [8]. 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 usually cause a conflict of interest between...
them. 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 in formation earnings management and opportunistic earnings management [9]. Opportunistic earnings management will negatively affect company performance, while informative earnings management will improve company performance [10]. Based on informative earnings management theory, managers will use their discretionary to communicate their beliefs on the information they have as insiders (private information) on the prospects for future corporate profits [11]. Two motives 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 [12].

While in Indonesia, there are two kinds of banks, based on share ownership. Namely, state-owned banks and private banks. State-owned banks which called Himpunan Bank Milik Negara (Himbara) in Indonesian, according to the Law of Republic of Indonesia No. 19 of 2003 is a company whose capital is divided into shares that are all or at least 51% of its shared owned by the Republic of Indonesia, and according to chapter 1 article 1, the main objective of the state-owned enterprise is the pursuit of profit/earnings. Bank Himbara itself as one of the state-owned companies is demanded to maintain the quality of earnings considering the performance of state-owned companies is certainly highlighted by the wider community [13]. The characteristics of government companies, binding rules, and accompanying laws make state-owned companies must care more [14]. On company performance, one of which is determined by the quality of earnings [15].

This study examines scrutinize at the effect of earnings quality on financial performance, especially in state-owned banks in Indonesia. The object of research is four conventional banks in Indonesia consist of four state-owned banks: Bank Negara Indonesia (BNI), Bank Rakyat Indonesia (BRI), Bank Mandiri and Bank Tabungan Negara (BTN). This study takes data from the financial statements of each bank, with the study period from 2006 – 2018. Indicators for earnings quality are discretionary accruals and earnings persistence while measurements for financial performance return on assets, return on equity, rate return on loans and total asset turn over.

II. RELATED WORK

Study confirms that the increase in the number of 'frauds' accompanied by the bankruptcy of several large companies raises concerns about the health of earnings quality [16]. In recent years, researchers and financial analysts in addition to paying attention to the quantity of income also pay attention to the quality of income. Earnings quality is an important aspect in evaluating the financial health of a corporate entity, but investors, creditors and other users of financial statements often ignore it. Earnings quality refers to the ability of reporting earnings to reflect the actual income of a company, as well as the benefit of reported earnings to predict future earnings. Earnings quality also refers to stability, persistence, and lack of variability in reported earnings.

Research conducted aimed to examine whether earnings management influences the bank's current and future performance or not [17]. This study analyzes whether there is an influence between discretionary loan loss provision and the two corporate financial indicators that is Return on Assets (ROA) and Return on Equity (ROE). Using a sample of 477 bank observations representing 55 European banks over the period 2001-2015, there are results of research that European banks with high levels of earnings management shown through discretionary loan loss provisions experience lower financial performance in the current year and next. The results of this study also show 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 throughout the European Union such as regulators, investors, audit firms, and standard makers who aim to improve the quality of financial reporting in the banking industry.

In contrast to previous research, study Ma & Ma shows that low earnings quality is associated with high company performances in state-owned companies in China [18]. Furthermore, research shows that earnings management is only a contributor to negative influences, not as the main driver. Research shows that the negative effect of earnings management on company performance is a new phenomenon that has emerged in periods of economic boom, especially in China.

Based on the problem and research objectives, the hypothesis in this study is earnings quality has a significant effect on financial performance.

III. METHODOLOGY

Meanwhile, from the objectives to be achieved, this study can be categorized as explanatory research that is research that seeks to explain whether there is a relationship between the research variables. According to Sugiyono [19], explanatory research is research that aims to explain the position of the variables studied and the relationship between one variable and another variable.

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 proxies for earnings quality are discretionary accruals and earnings persistence. Following Beaver and Engel (1996), the formula for discretionary accruals is as follows
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:

Total Asset Turn Over = Sales / Total Asset

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:

ROA = Earning Before Tax / Average Total Asset

c) Return on Equity

Return on equity is a ratio to measure net income after tax with own capital. ROE ratio is measured by the formula:

ROE = Earning After Tax / Average Paid Up Capital

d) Rate Return on Loan

Rate of return on loan is the ratio of analysis used to measure the ability of 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 [22].

RRL = Earning After Interest and Tax / Total Loan \times 100

Source: Kasmir (2017)

IV. RESULT AND DISCUSSION

Descriptive analysis results on earnings quality variables at Himbara bank can be seen in Table I.

<table>
<thead>
<tr>
<th>Descriptive Analysis of Himbara’s Bank Earnings Quality</th>
<th>Earnings Persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td>TA = β0 + β1 Coa + β2 Loana + β3 NPAa + β4 ΔNPAa + ei</td>
<td></td>
</tr>
</tbody>
</table>

Source: Beaver dan Engel (1996)

Note:

TA = Total accrual (NIt - CFOIt)
NIt = Net income of Company i in t period
CFOIt = cash flow from the company’s I operational activity in t period
CoIt = Loans charge
Loana = Loans outstanding
NPAa = Non-performing assets, shows the comparison of problematic productive assets with their total productive assets.
ΔNPAa+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.

NDAa = TAa - (β0 + β1 Coa + β2 Loana + β3 NPAa + β4 ΔNPAa+1)

Source: Beaver dan Engel (1996)

c) Calculating discretionary accruals value with the following formula:

DAit = TAa - NDAa

Source: Beaver dan Engel (1996)

TAa is total accrual calculated by the allowance for possible losses on earning assets (PPAP), NDAa is non-discretionary accruals and DAa 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 [21]. Earnings consistency is measured through Sloan’s model with the following formula.

Eit = β0 + β1it Eit-1 + eit

Source: Beaver dan Engel (1996)

Where Eit is the accounting profit (earnings) of the company i in year t, whereas Eit-1 is the accounting profit (earnings) of company i before year t. then β0it is a constant and β1it becomes the persistence of accounting earnings. If the accounting profit regression coefficient is (β1it)> 1, then the persistent high. If the earnings regression coefficient is (β1it)> 0, then it is persistent. Conversely, if the earnings regression coefficient (β1it) ≤0 then it is fluctuating and not persistent [20]. Data is obtained from the Indonesian
Overall the condition of earnings quality in Himbara bank fluctuated had experienced positive developments in 2006 - 2010, declined in the following year until returned positive in the period 2016 - 2018. This shows that the condition of quality earnings in himbara banking in Indonesia has not been stable. This is due to various factors, such as Indonesia’s economic conditions which also fluctuated in the period of the study so that it affects earnings growth and the persistence of banking profits in Indonesia. The trend of earnings quality development in Indonesia can be seen in Fig. 2.

<table>
<thead>
<tr>
<th>Tahun</th>
<th>TATO (Y1)</th>
<th>ROA (Y2)</th>
<th>ROE (Y3)</th>
<th>RRL (Y4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min</td>
<td>Max</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>2006</td>
<td>0.089</td>
<td>0.136</td>
<td>0.113</td>
<td>0.023</td>
</tr>
<tr>
<td>2007</td>
<td>0.073</td>
<td>0.114</td>
<td>0.094</td>
<td>0.020</td>
</tr>
<tr>
<td>2008</td>
<td>0.074</td>
<td>0.114</td>
<td>0.093</td>
<td>0.018</td>
</tr>
<tr>
<td>2009</td>
<td>0.068</td>
<td>0.111</td>
<td>0.094</td>
<td>0.014</td>
</tr>
<tr>
<td>2010</td>
<td>0.075</td>
<td>0.110</td>
<td>0.089</td>
<td>0.017</td>
</tr>
<tr>
<td>2011</td>
<td>0.059</td>
<td>0.102</td>
<td>0.079</td>
<td>0.019</td>
</tr>
<tr>
<td>2012</td>
<td>0.067</td>
<td>0.090</td>
<td>0.076</td>
<td>0.011</td>
</tr>
<tr>
<td>2013</td>
<td>0.068</td>
<td>0.095</td>
<td>0.079</td>
<td>0.013</td>
</tr>
<tr>
<td>2014</td>
<td>0.073</td>
<td>0.094</td>
<td>0.084</td>
<td>0.009</td>
</tr>
<tr>
<td>2015</td>
<td>0.073</td>
<td>0.097</td>
<td>0.084</td>
<td>0.011</td>
</tr>
<tr>
<td>2016</td>
<td>0.073</td>
<td>0.094</td>
<td>0.080</td>
<td>0.010</td>
</tr>
<tr>
<td>2017</td>
<td>0.068</td>
<td>0.091</td>
<td>0.076</td>
<td>0.011</td>
</tr>
<tr>
<td>2018</td>
<td>0.067</td>
<td>0.086</td>
<td>0.074</td>
<td>0.009</td>
</tr>
<tr>
<td>Total</td>
<td>0.079</td>
<td>0.114</td>
<td>0.084</td>
<td>0.014</td>
</tr>
</tbody>
</table>

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  \( t \) statistics \( \geq t_{table} (1.96) \) or probability \( \leq \) level of significance (\( \alpha = 5\% \)). The results of testing the validity of the formative model are presented in the following Table III:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Weight</th>
<th>SE</th>
<th>T_stats</th>
<th>Sig (( \alpha ))</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQ</td>
<td>DA</td>
<td>0.377</td>
<td>0.092</td>
<td>4.085</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>EP</td>
<td>0.894</td>
<td>0.014</td>
<td>22.291</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td>FP</td>
<td>TATO</td>
<td>0.128</td>
<td>0.015</td>
<td>2.544</td>
<td>0.015</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>ROA</td>
<td>-0.208</td>
<td>0.092</td>
<td>2.241</td>
<td>0.031</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>ROE</td>
<td>0.944</td>
<td>0.043</td>
<td>22.15</td>
<td>0.000</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>RRL</td>
<td>0.202</td>
<td>0.066</td>
<td>3.061</td>
<td>0.004</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Based on the table, it can be seen that all indicators measuring the variables of earnings quality and financial performance has  \( t \) statistics values higher than  \( t_{table} (1.96) \) or the probability is lower than the level of significance (\( \alpha = 5\% \). Thus the indicators that measure the variables of earnings quality as well as financial performance are declared valid. On the other hand, on financial performance variables, indicators of TATO, ROA, ROE, and RRL produce  \( t \) statistics values greater than  \( t_{table} (1.96) \) or the probability is smaller than the level of significance (\( \alpha = 5\% \). Thus the TATO, ROA, ROE and RRL indicators are declared valid to measure financial performance variables.

Indicators measuring the variable earnings quality can be seen in Table IV.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings Quality (Z)</td>
<td>DA (Z1)</td>
<td>0.377</td>
</tr>
<tr>
<td></td>
<td>EP (Z2)</td>
<td>0.894</td>
</tr>
</tbody>
</table>

Descriptive analysis results on financial performance variables at Himbara bank can be seen in Table II. Overall, the financial performance of Himbara’s banks in Indonesia is in a positive condition. This means that state-owned banks in Indonesia can make efficient use of company assets to generate positive income from the use of assets, can generate profits following paid-up capital, and can balance costs incurred with total loans or financing disbursed. Trends in the development of financial performance in Indonesia can be seen in Fig. 3.
The earning quality variable measurement model is as follows:

\[ Z = 0.377 Z_1 + 0.894 Z_2 \]

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 0.377. 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 0.894. This means that the earnings persistence indicator (EP) positively measures earnings quality variables. Thus, the higher earnings persistence (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 0.894. This means that the earnings presence indicator (EP) is the most dominant in measuring earnings quality variables.

Indicators measuring the financial performance variables can be seen in Table V.

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 0.128. This means that the total assets turns over (TATO) indicator measures the financial performance variable positively. Thus, the higher the total assets turn over (TATO) indicator can increase the financial performance variable. Measurement of return on assets (ROA) indicators on financial performance variables produces a weight value of -0.208. This means that the return on assets (ROA) indicator measures the financial performance variables negatively. Thus, the higher the return on assets (ROA) indicator can reduce the financial performance variable. Measurement of return on equity (ROE) indicators on financial performance variables produces a weight value of 0.944. This means that the return on equity (ROE) indicator measures the financial performance variables positively. Thus, the higher the return on equity (ROE) 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 0.202. 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 equity (ROE) indicator has the greatest loading value of 0.944. This means that the return on equity (ROE) 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 the statistics \( t \) is greater than or equal to the table (1.96) or probability \( \leq \) level of significance \( (\alpha) \leq 5\% \) then the significant influence of exogenous variables on endogenous variables are stated. The results of the significance test can be known through the following Table VI:

The effect of earnings quality on financial performance results in a \( T \) statistic of 0.425 and a probability of 0.364. The test results show that the value of \( T \) statistics \( < 1.96 \) or probability \( > 5\% \) means that there is no significant effect on earnings quality on financial performance.

The result of this research at state-owned banks are also not following the Theory of Earnings Management. Which according to studied before, if company management performs earnings management in the form of reporting earnings that is not appropriate, it will cause the company’s performance to fall [23]. This could be due to the highly regulated nature and characteristics of state-owned banks, which seeks to show a good company’s performance. Thus, earnings quality is not enough to affect the financial performance of state-owned banks.

V. CONCLUSION

This study purposes the effect of earnings quality on financial performance, especially in state-owned banks in Indonesia. In contrast with other previews research. The mainstream of theoretical asserts that earnings quality has a positive effect on financial performance, such as the research result of Darabi, Rab & Ghadiri (2012) and Al-Hadab & Al-Own (2017). This study in line with the research result of Ma & Ma’s (2017) research, shows that low earnings quality is associated with high company performance.

The test result of this study indicates that earnings quality has a not significant effect on financial performance in state-owned banks in Indonesia.

The unique character of state-owned companies in Indonesia may be the reason that earnings quality does not significantly influence financial performance. In Indonesia,
state-owned companies are governed by more laws than private companies. The private sector is only regulated by three laws namely the Limited Liability Company Law, the Capital Market Law, and the Sectoral Law. Meanwhile, state-owned companies must comply with eight laws, namely the Limited Liability Company Law, the Capital Market Law, and the Sectoral Law, the SOE Law, the State Finance Law, the State Treasury Law, the Anti-Corruption Law, and the State Management and Responsibility Act. The different characteristics of state-owned companies may cause many other factors, in addition to earnings quality, which has more influence on the financial performance of state-owned companies.

This research provides a practical contribution to the Indonesian government, especially in the banking sector to pay attention to other factors to support company performance. State-owned banking can pay more attention to the quality of human resources or its employees, considering that the banking sector is a science-based business sector and relies heavily on people as a support for the company's financial performance.

However, even though earnings quality does not have a significant effect on financial performance, state-owned banks must still maintain revenue quality, given the very high pressure and attention from the public to state-owned companies, and for the long-term sustainability of the company.

**CONFLICT OF INTEREST**

The authors declare no conflict of interest

**AUTHOR CONTRIBUTIONS**

The contribution of all authors in this study is specifically for state-owned banks where previously there was no specific research on state-owned banks, especially in Indonesia. The first author experienced in state-owned banks certainly has sufficient capability to examine about state-owned banking. While the second author and third author are experienced as experts in the field of financial performance to be able to provide input and perspectives according to this research.

**REFERENCES**


