Analysis of the Implementation of Indonesian Government Regulation Number 20 Year 2015 Related to Tenure and Rotation of Accounting Firms and Public Accountants to Audit Quality

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Abstract—This study examines government regulations related to public audit services performed by the accounting firm and public accountant as regulated in Government Regulation (PP) No. 20 of 2015, which in this case, eliminates limits for accounting firm (AF) tenure and extends public accountant (PA) tenure from three years into five years. This research also analyzed the previous regulations of the Minister of Finance Decree No. 359/KMK.06/2003, Minister of Finance Regulation No. 17/PMK.01/2008, which are related to the existence of real and pseudo-rotation of AF. This research used 195 non-financial industry companies listed in the Indonesia Stock Exchange with pre-regulation research period is the year 2008-2014 and post-regulation is the year 2015-2016. The results show that AF tenure has no quadratic effect on audit quality, while tenure of PA has a concave quadratic effect on audit quality in the post-regulation period. This study also found that the pseudo-rotation of AF had a positive effect on audit quality in the pre-regulation period and did not affect the post-regulation period, while it was not found that the real AF rotation had an effect on audit quality.

Index Terms—audit tenure, audit rotation, audit quality, regulation

I. INTRODUCTION

There are many accounting scandals which happened in major companies in the world, such as Enron, Worldcom, Parmat, Toshiba and the latest is the Satyam in India, which degrade the public trust on audit results and quality. These accounting scandals even involve the leading Accounting Firms (AF) and cause the independence of the Public Accountants (PA) questioned. The PA independency is indicated to diminish due to the relationship between management as a client. This can be caused by several things, and one of them is the absence of rotation of AF and PA during the auditor’s working period.

Audit tenure and rotation are regulated in SOX and applied in almost every country in the world, including Indonesia. The Government of Indonesia as a regulator, modified the SOX to suit the regulation in the country. On September 30, 2002, the Government of Indonesia through the Ministry of Finance of the Republic of Indonesia issued a regulation concerning auditor tenure and rotation in Indonesia, called the Minister of Finance Decree Number 423/KMK.06/2002 on Public Accounting Services, stipulating that the AF is allowed to provide maximum public audit services for five fiscal years in a row, and the tenure of PA is three consecutive fiscal years. In 2002, the Indonesian Capital Market and Financial Services Supervisory (BAPEPAM-LK) also regulated a three-year cooling-off period in regulation Number VIII.A.2. Subsequently, the regulation was revised in 2008 through the Minister of Finance Regulation No. 17/PMK.01/2008, limiting the tenure of AF that is allowed to audit the financial statements of a company for six fiscal years in a row, and PA is only allowed for three consecutive fiscal years. BAPEPAM-LK also revised the regulation regarding the cooling-off period to 1 year in the Decree of the Chairman of BAPEPAM-LK Number: KEP-310/BL/2008 on the Independence of Accountants Providing Services in the Capital Market. The regulation was revised on April 6, 2015, in Indonesian Government Regulation (PP) No. 20 of 2015 [1], eliminating the restrictions on the AF tenure, but PA tenure is maintained for five consecutive fiscal years. In addition, PP No. 20 of 2015 also set the cooling-off period for 2 consecutive years. The existence of regulatory revisions to tenure and rotation makes the researcher try to see the impact of before and after the implementation of the regulation on audit quality produced by AF and PA.

Audit rotation is interesting to investigate because not only PA is required to rotate but also AF. Indonesia’s law on rotation allows pseudorotation and real rotation. Siregar, et al. argued that the majority of rotations in Indonesia is a pseudorotation after 2003 [2]. Pseudorotation is a change in the composition of audit partners and the change of AF, like there is no rotation. While the real rotation is actually a change of AF [3].

There is a debate about the relationship between tenure of auditors and audit quality. Prior research argued that the longer the tenure, the lower audit quality because it impacts in auditors’ independence [4]. Carcello and Nagy stated that the longer the tenure, the better the audit quality [5]. Due to the increasing length of tenure, the auditor will understand the company more. It also happens in the impact of audit rotation on audit quality, that if there is audit rotation it will impact to higher the auditor’s independence, in line with Gavious who stated that long-term relationship of auditors can raise
the issue of independence [6]. Other research argued that the auditor’s ability will be decreasing because the more frequent the rotation occurs, the less auditors understanding of their clients need [7].

Previous studies investigate positive or negative linear effects, and others focus on the quadratic effects. Fitriany, et al. used discretionary accrual as a proxy for audit quality and prove that there is a concave relationship between audit quality and tenure [8]. Siregar, et al. found there is a quadratic relationship between discretionary accruals and audit quality, except for ERC [2]. Our research examined the linear and quadratic relationship between audit tenure, audit rotation, audit quality, and how the regulation is applied from 2008–2016.

This paper is the extension of the study by Fitriany, et al. [3] that examined the influence of audit tenure, audit rotation and specialization of audit firm before and after the application of regulations in Indonesia in 2003. Our paper contributed to before and after the application of AF and PA regulations (PP No.20 Year 2015) which prior researchers have not found empirical evidence on the application of the regulation. This study uses Modified Jones models [9] as the discretionary accrual formula which measures the earnings management.

Our study aims to see the impact of the implementation from the regulations that are related to tenure and rotation of AF and PA that are regulated in Indonesian Government Regulation (PP) No. 20 of 2015. This study used non-financial companies that are listed in the Indonesia Stock Exchange. The data studied in this study ranged from 2008 to 2016 (nine years) with some regulatory changes.

II. LITERATURE REVIEW
A. Agency Theory and Audit Quality

Jensen and Meckling explained the relationship between the owner (shareholder) and the agent (manager) within the contractual framework [10]. In the contract, the agent works for the owner’s interest to make business decisions based on the delegation of authority from the owner to the agent. In practice, the interests between the owner (principal) and the agent are not always in line so this creates a conflict of interest between the two parties. The manager does not always act in the way the owner wants to be; one of the causes of this is a moral hazard (the manager’s desire to act for personal gain). Moral hazard occurs because of the asymmetric information between the manager and the owner. In the context of the agency, it requires a third party as an independent mediator – the external auditor—to provide an opinion on the fairness of financial statements. The use of independent external auditors can reduce agency costs [10], [11].

B. Audit tenure to audit quality

There are several studies which provide argument that the influence of tenure is not a linear but a quadratic relationship, e.g. a previous study by Davis, et al. [4]; Siregar, et al. [2]; Fitriany [12]. DeAngelo argued that audit quality is the ability of AF/PA to detect errors in financial statements and report the result to the users of the financial statement [13]. Some previous studies [2], [4], [12] tried to prove that there is a quadratic influence on tenure and audit quality, that refers to DeAngelo [13]. According to Fitriany [12], there is a positive relationship between tenure audit and auditor competence; the assumption is the longer audit tenure of AF/PA, then they will understand more about clients’ internal control system, accounting information system, and company-specific risk. This positive relationship can be illustrated by the convex or concave curve, depending on how much improvement in AF and PA competencies as one of the governance mechanisms on tenure audit. The concave curve indicates the addition of slower competence in subsequent years, whereas the convex curve indicates a faster competence in the early year.

Other than a positive relationship between the audit tenure and the independence of AF/PA, there is an assumption that will be a negative relationship. This relationship is because there is an indication of the proximity of the relationship between PA and clients, that cause the PA’s independency to be reduced. The negative relationship can be described in the convex or concave curve. The concave curve indicates that the rapid decreasing of independence occurs in the early period of the audit tenure, whereas if the curve is convex in subsequent years of tenure. The hypothesis is:

H1a. Accounting firms’ tenure has a concave quadratic relationship to audit quality

One of the factors in the Sarbanes-Oxley Act and the limitations on other PA tenure limits is due to the indication of the lack of AF/PA independence after the tenure period. Thus, it can be said that reduced audit quality can occur in the early period of engagement or a decrease in the long tenure period. Based on the explanation above, the following hypothesis is formulated:

H1b: Public accountant tenure has a concave quadratic relationship to audit quality.

C. Accounting Firms Rotation to Audit Quality

The implementation of PP No. 20 of 2015 produces a policy that does not regulate the maximum tenure for the AF to the client. In other words, it can be said that the regulation eliminates the obligation to rotate AF. Therefore, this study tries to obtain empirical evidence whether AF rotation should be given a maximum limit or not. In its development, there were two types of AF rotation (pseudo and real) in Indonesia that motivates this research to test and review the Decree of the Minister of Finance (KMK) No. 359/KMK.06/2003 and Minister of Finance Regulation Number 17/PMK.01/2008 which caused the emergence of pseudo-AF rotation.

There are two types of rotational effects on audit quality. First, opinions that disagree with the enactment of the regulation regarding the rotation, which argue that the new regulation implies the risk of under-audit quality due to the new AP, who do not understand their clients well. This is supported by Davis, et al. [4] and Craswell, et al. [14]. Second, the opinion that agrees on the implementation of rotation can reduce discretionary accruals, so it will improve the audit quality.
This opinion is supported by Hamilton, et al. who said that rotation can reduce discretionary accruals and produce better audit quality and financial reports which are shown by better earnings quality [15]. Gietzmann and Sen also argued, even though audit obligations increase costs, these rules increase the independence of PAs [16]. Thus, the next hypothesis is:

H2a. Accounting firms’ rotation has a positive impact on audit quality

This research is only limited to test the rotation of AF because based on the latest regulations, Indonesian Government Regulation Number 20 of 2015, there are no more restrictions for AF, while the restrictions for PA become longer, which previously is 3 years in a row, then becomes 5 successive financial years. Furthermore, this study also tested KMK Number 359/KMK.06/2003 and PMK Number 17/PMK.01/2008, a regulation which enabled a pseudo AF rotation in addition to the rotation of real AF in Indonesia. This can be seen by examining the effect of pseudo and real AF rotation on audit quality. The hypotheses are:

H2b. Pseudo accounting firms’ rotation impacts the audit quality
H2c. Real accounting firms’ rotation impacts the audit quality

Previous regulations–KMK No.359/KMK.06/2003 and PMK No.17/PMK.01/2008–are considered appropriate if the result from empirical test shows the effect of pseudo-AF rotation on audit quality is positive significant compared to the real AF rotation on audit quality. If this research results in a rotation of real AF which has a more significant effect on audit quality compared to the apparent rotation of AF, then the regulation is considered inappropriate. This also applies if the pseudo-AF rotation has no effect on audit quality.

III. RESEARCH METHODOLOGY

The sample of this study is non-financial companies listed on the Indonesia Stock Exchange (IDX) from 2008 to 2016, related to the enactment of PP No. 20 of 2015 concerning the tenure of AF and PA. The research sample is divided into two, the pre-regulation period (2008-2014) and the post-regulation period (2015-2016). The sample selection method is purposive sampling. This study as a whole uses 195 companies or 1755 company samples. The number of samples obtained after previously discarding 20 companies indicated as outliers, which if maintained, will have implications for the data as a whole and can be misleading. A total of 20 companies that were categorized as outliers were discarded from the sample, after the winsorizing processes.

Hypotheses 1a and 1b state that the tenure of AF and PA is predicted to have a quadratic influence on audit quality. Hypothesis 2a will examine the effect of AF rotation on audit quality. Hypothesis 2a is predicted to have a positive influence on audit quality. Hypothesis 2b will test the effect of pseudo-AF rotation and audit quality. In hypothesis 2b it is predicted that pseudo-AF rotation has an influence on audit quality. So, to test all the four hypotheses:

Model 1a

\[ ABS_{DAC_{it}} = \alpha_1 + \alpha_2 FTENURE_{it} + \alpha_3 FTENURESQ_{it} + \alpha_4 PROTATION_{it} + \alpha_5 PROTATIONSQ_{it} + \alpha_6 IFRS_{it} + \alpha_7 BIG_{it} + \alpha_8 LEV_{it} + \alpha_9 GROWTH_{it} + \alpha_{10} SIZE_{it} + \alpha_{11} LOSS_{it} + \alpha_{12} CFO_{it} + \alpha_{13} ROA_{it} + \epsilon_{it} \]

The Model 1a will undergo one more modification to observe the influence of linear AF and PA tenure. Modifications will eliminate FTENURESQ and PROTATIONSQ variables which are quadratic variables. This is done to see the consistency of research results, with the elimination of quadratic variables in the study. So that Model 1b is as follows:

Model 1b

\[ ABS_{DAC_{it}} = \alpha_1 + \alpha_2 FTENURE_{it} + \alpha_3 FTENURESQ_{it} + \alpha_4 PROTATION_{it} + \alpha_5 PROTATIONSQ_{it} + \alpha_6 IFRS_{it} + \alpha_7 BIG_{it} + \alpha_8 LEV_{it} + \alpha_9 GROWTH_{it} + \alpha_{10} SIZE_{it} + \alpha_{11} LOSS_{it} + \alpha_{12} CFO_{it} + \epsilon_{it} \]

Next, in hypothesis 2b, it was hypothesized that there was an effect of pseudo-AF rotation and audit quality. Model 1b was not enough to test hypothesis 2b, but it needed to be supported by a trial on model 2. In addition to model 2, the hypothesis was also tested to see the effect of real AF rotation on audit quality. The hypothesis that will be tested is that the rotation of real AF has an influence on audit quality. To test these two hypotheses, model 2 is used, which is as follows:

Model 2

\[ ABS_{DAC_{it}} = \alpha_1 + \alpha_2 RROTATION_{it} + \alpha_3 RROTATIONSQ_{it} + \alpha_4 IFRS_{it} + \alpha_5 BIG_{it} + \alpha_6 LEV_{it} + \alpha_7 GROWTH_{it} + \alpha_{8} SIZE_{it} + \alpha_{9} LOSS_{it} + \alpha_{10} CFO_{it} + \epsilon_{it} \]

Where:

\( ABS_{DAC}= \) Absolute Discretionary Accrual, as audit quality measurement; FTENURE= year of AF audit engagement with client; FTENURESQ= quadratic
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TABLE I
DESCRIPTIVE STATISTIC

<table>
<thead>
<tr>
<th>Variable</th>
<th>Linear Period</th>
<th>Pre-Regulation</th>
<th>Post-Regulation</th>
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<td>Min.</td>
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</table>

FTENURE; PTENURE = year of PA audit engagement and client; PTENURESQ = quadratic PTENURE; FROTATION = Dummy AF rotation, score 1 if there is AF rotation (pseudo or real), dan 0 otherwise; RROTATION = Dummy real AF rotation, score 1 if there is real rotation AF, dan 0 otherwise; PROTATION = Dummy PA rotation, score 1 if there is PA rotation PA dan 0 otherwise; LEV = Leverage, measured by market capitalization/total asset; GROWTH = firm growth, measured by operating cash flow, scored by total asset; ROA = profitability measured by net income ratio/total asset; BIG4 = Dummy AF size, scored 1 if BIG 4 dan 0 otherwise; IFRS = Dummy IFRS convergence, score 1 if started from 2012 to 2016, dan 0 if started from 2008 to 2011; LOSS = Dummy firm financial condition, score 1 if the firm has loss and 0 otherwise.

The audit quality will be proxied by discretionary accruals. The use of discretionary accruals itself has been carried out to proximate audit quality in several previous studies including Myers, et al. [17]; Chi, et al. [18]; Fitriany [12]. The model used is by Dechow, et al. [9], where this model provides evidence that the modified Jones model is the most powerful model in the study of detecting earnings management among other models.

IV. RESULT AND DISCUSSION

A. Descriptive Statistics

Tables I presents descriptive statistics for the period before the KMK and the period after PP No. 20 of 2015. The average value of DAC after PP No. 20 of 2015 (0.0729) is smaller than before PP No. 20 of 2015 (0.1803). This can be an indication of an increase in earnings quality in the period after PP No. 20 of 2015. The audit period for both PA and AF is longer in the period after PP No. 20 of 2015 compared to before PP No. 20 of 2015, because after PP No. 20 of 2015 there is no limitation on the audit period for AF, while PA still has a period of rotation. PA and AF rotation also increased in the period after KMK and PA rotation.

After the regulation was applied (PP No. 20 of 2015), there are more public companies audited by Big 4 than non-Big 4. This is a consequence of the existence of regulations which do not limit the audit period, so it increases the market share of the Big 4. Table I presents a recapitulation of auditor rotation in the period before and after the regulation. From the table, it is clear that there is a significant increase in PA rotation and AF rotation after the issuance of regulations governing the limitation of the audit period. AF rotation is divided into pseudo and real. From the table, there is a decrease in real AF rotations starting from 2015. The decrease in real AF rotation is due to a large number of the pseudo-AF rotation after the regulation is applied, this is proven in table I.

B. Hypotheses Testing

1) Accounting Firms’ Tenure and Audit Quality: From the output in table II, in the pre-regulation period, it can be seen that the FTENURE and PTENURESQ variables have no significant effect on the absolute discretionary accruals, it also showed in the post-regulation output. This remains consistent if the researcher ignores the existence of regulation by examining the linear FTENURE and PTENURESQ variables shown in table II. This means that there is no significant quadratic influence of AF tenure on audit quality. The results of this study are similar to those of Wahyuni and Fitriany [19] but different from the results by González-díaz, et al. [20], Brooks, et al. [21] and Fitriany [12] which prove the firm’s tenure and quality audit is quadratically related.

2) Public Accountant’ Tenure and Audit Quality: The results of the study in table II show that there is a relationship of PA tenure in a quadratic manner on the absolute discretionary accruals during the linear period. This means that there is a
TABLE II
LINEAR, PRE-REGULATION, AND POST-REGULATION PERIOD TEST RESULT

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1a</th>
<th>Model 1b</th>
<th>Model 2</th>
<th>Model 1a</th>
<th>Model 1b</th>
<th>Model 2</th>
<th>Model 1a</th>
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<td>0.458</td>
<td>-0.0008</td>
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<td>0.0219</td>
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<td>-0.1353</td>
<td>0.000***</td>
<td>-0.1353</td>
<td>0.000***</td>
</tr>
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</table>

N (Number of Observation)     1755  1755  1755  1365  1365  1365  390  390  390
Adjusted R-Squared            0.0490  0.0472  0.0458  0.0350  0.0343  0.0254  0.3571  0.3496  0.3438
Prob (F-Statistic)            0.0000  0.0000  0.0000  0.0000  0.0000  0.0000  0.0000  0.0000  0.0000

significant quadratic influence between PA tenure and audit quality. Different results were obtained when it is divided into pre-regulation and post-regulation, in which there is no quadratic effect of PA on the pre-regulation period but there is a quadratic relationship of PA post-regulation. These post-regulation results show a negative coefficient value of PTENURE variable (positive on audit quality), and a positive coefficient value of PTENURESQ variable (negative on audit quality), so it can be said that it is convex. From the result shown, the maximum point of PA tenure is when it enters its third year, this means that after the third year, the audit quality will decrease. In other words, PA understanding has increased rapidly over the first three years, but if the tenure period continues, it will reduce the audit quality after three years. Thus PP No. 20 of 2015 which extends the tenure of PA from three years to five years is less precise, as it is better to maintain the previous regulation with a three-year rotation policy for PA.

3) Accounting Firms’ Rotation and Audit Quality: The effect of AF rotation on audit quality shows different results in each period and in both research models. From the output in Table II in the linear period, the results in model 1a do not show the rotation effect of AF on absolute discretionary accruals, but in model 1b rotation AF has a significant negative effect. Different results are presented in the post-regulation period in Table II, which does not show the effect of AF rotation on the two models on absolute discretionary accruals. From these results, it can be concluded that in testing the effect of AF rotation on audit quality, linear models are better used when compared with quadratic models, as seen by the significance of linear model testing results.

4) Pseudo Accounting Firms’ Rotation and Audit Quality: The effect of the rotation of the pseudo-public AF on quality, in this study, can be seen from the results of regression models 1b and 2 simultaneously, model 1b is used because it is free from the influence of quadratic variables AF and PA. In the results of the 1b model regression output for the linear period (2008-2016), which in its assessment also it can be counted as pseudo-AF rotation, had a significant negative effect on audit quality. The same results were also shown in the pre-regulation period (2008-2014), and different results in post-regulation (2008-2014) which showed no effect of AF rotation on audit quality. In regression model 2, it is shown that the rotation of real AF does not affect audit quality, including in the linear period. Thus, from the results of the model 1b regression output, it can be concluded that the rotation of AF generally has a significant negative effect on discretionary accruals (pseudo-AF rotation).

It is known that the absolute variable of discretionary accruals has a negative relationship with audit quality, so it can be concluded that pseudo-AF rotation positively affects audit quality. From these conclusions, it can be said, the conclusions related to pseudo-AF rotation and audit quality prove the H2b hypothesis. This can be interpreted, if the company rotates pseudo AF with the AF that provides its audit services, the audit quality provided by the AF will be better.
5) Real Accounting Firms' Rotation and Audit Quality:
The results of the test regression model 2 produce an output related to the rotation of the real public accounting firm (AF) and audit quality. The model 2 regression output can be used to test and answer the hypothesis (H2c) of this study which states that the rotation of real AF affects audit quality. The explanation of these outputs shows that in the three study periods (linear, pre-regulation, and post-regulation periods) that the real AF rotation does not significantly influence the absolute discretionary accruals. So, the audit quality provided is not affected by whether a company is doing a real rotation or not.

V. Conclusion

This study proves that AF tenure does not have a quadratic effect but has a linear effect on the pre-regulation period on audit quality. This is related to the independence and competency of AF (both of which can affect quadratic audit quality). This research also proves that AF rotation with linear models (model 1b) in the pre-regulation period has a positive effect on audit quality, but not for the post-regulation period. From these two results, it can be seen that PP No. 20 of 2015 which does not regulate tenure for public accounting firms (directly eliminating rotation obligations) is an inappropriate regulation. This study proves that PA tenure has a convex quadratic effect on audit quality. This means that audit quality will increase in the initial three years of the audit engagement period, then decreasing afterward. From the results, it can be seen that PP No. 20 of 2015 which extends the tenure limit of PA from the three years to five years is an improper regulation, because audit quality will only increase in the first three years of the engagement and decrease afterward. This study proves that pseudo-AF rotation has a positive effect on audit quality in the pre-regulation period and does not affect audit quality in the post-regulation period and the rotation of real AF has no effect on audit quality. With these results, it can be seen that the KMK No. 359/KMK.06/2003 and PMK No.17/PMK.01/2008, are the right regulations when first implemented, but not for the post-regulation period.

Some limitations in this study are: the sample of this study is limited to only public companies on the Indonesia Stock Exchange, so further research is can test in private companies. The sample in this study is also limited to the non-financial industry so that further research can use similar research in the financial industry. The implications of this study include: from the results of the study it can be seen that PP No. 20 of 2015 which eliminates the tenure of AF indirectly eliminating the obligation of AF rotation. Thus, the government as a regulator should conduct a review regarding the implementation of a regulation concerning the tenure and rotation of AF in the future. The reason for the insignificance of the AF tenure in the pre-regulation period on audit quality is that there is a decrease in independence and an increase in competence regarding the client. As for PA, the extension of the tenure audit period which was originally three years to five years in PP No. 20 of 2015 is inappropriate. This is related to the research findings that there is a decline in audit quality after the third year in the post-regulation period, so regular training is needed to increase PA's competence and consistency to impact the audit quality from the start of the audit engagement period.

REFERENCES