



The Influence of Pseudo Auditor Rotation on Audit Quality: New Evidence

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Abstract

The objectives of this research are twofold, to test the audit quality of companies that change their auditors either voluntarily or mandatorily and to test the financial characteristics as a factor for an accounting firm to engage in pseudo mandatory rotation. Since 2002, Indonesia has had legislation mandating companies to rotate their auditor after six years of consecutive engagements (five years prior to 2008). However, auditors sometimes seem to find their own way to deceive the mandatory regulation by a tactic called “pseudo” mandatory rotation. Thus, we divide mandatory rotation into two categories, pure and pseudo mandatory rotation.

The results of the data we collected since the Ministerial decree became effective in 2003 indicate companies that rotate their auditors mandatorily have higher audit quality than that of companies voluntarily rotating auditors. However, we cannot find evidence that pseudo and pure mandatory rotation have different audit qualities. The results also indicate that switching among bigger accounting firms have the highest audit quality rather than switching between smaller audit firms which have lower audit quality. Lastly, the motives of an accounting firm to engage in pseudo or pure mandatory rotation are related to the financial size of their clients. Future research must consider the limitation stated in this study.⁶

JEL Classification: G38, M42, L51.

Keywords: audit quality, auditor switching, discretionary accruals, pseudo and pure mandatory rotation, voluntary rotation.

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INTRODUCTION

Indonesia is one among few countries that mandates auditor rotation⁷. The regulation of auditor rotation has been enacted since 2002 and is still in effect until today⁸. The enactment of this regulation has some implications on research and raises debate between regulators and academicians. The debate questions which one is better among these polar opposites, whether to regulate or not to.

The investigation of the effect of mandatory auditor rotation outside Indonesia are rarely studied. This is caused by the fact that not many countries have such regulation. For example, a study in South Korea conducted by Kwon et al. (2014) indicates that the audit quality did not change there. Meanwhile, investigation from other perspective conducted by Cameran et al. (2015) shows that replaced auditor (or in its final year before rotation) does not decrease its audit quality. However, the audit fee is raised by 7% compared to previous years. On the contrary, this investigation found an indication of lowballing (as low as 17%) is raised abnormally in later years by the replacing auditor in the first year of its tenure. In relation to the audit quality, they found evidence of lower audit quality during the first three years of engagements before being raised into higher tenure.

Several studies have investigated the importance of mandatory auditor rotation in Indonesia. Febrianto & Sugiri (2014) for example, fail to find changes in audit quality of firms that rotated their auditors. Another research with similar conclusion was drawn by Siregar et al. (2011), earlier than the research above. Both studies were tested from 2002-2008 or during first rotation in which the latter rotation may be untouched.

Febrianto & Sugiri (2014) invited other researchers to investigate audit quality of more rotating firms further. They believe that some of the auditees are still audited by the same accounting firm before and after the mandatory rotation. This indication can be seen from foreign affiliation that local accounting firm has. If pre-rotation and post-rotation were audited by the same auditor, the increase in audit quality being aimed will be an empirical question to answer then. Febrianto & Sugiri (2014), Siregar et al. (2011), as well as Junaidi et al. (2014) call this type of auditor rotation as pseudo mandatory rotation.

Research Importance

This research is important based on several reasons. First, the regulation of mandatory auditor rotation is unique and can only be found in few countries outside Indonesia. The US government has launched several tactics to have supports regulating accounting firm rotation but academicians come out with evidence contrary to government's expectation. Therefore, people are still interested to answer whether this requirement may have some effect on audit quality or not. Second, some Indonesian local accounting firms have agreed to change their local identity but still maintain their foreign affiliation. This motivation may be related to maintaining one or more important clients which have deep pockets. Siregar et al. (2011), Febrianto & Sugiri (2014), and Junaidi et al. (2014) all find some indications of this motivation. Therefore, the

⁷ Other countries that also mandate auditor rotation are Italia and South Korea. Italia has enacted the regulation since 1975 (Cameran et al., 2015). European Union has also considered it even though it is still not enacted. South Korea mandates auditor rotation during 2006-2010 (Kwon et al. 2014). Other countries that mandate auditor rotation are Brazil and Singapore—only for banks (Kwon et al., 2014).

⁸ Current regulation is Ministry Regulation Decree No. 17/2008. This decree replaces decree No. 423/2002. Later the Presidential decree No. 20/2015 also regulates auditor rotation. However, Article 11 of that decree only regulates a partner tenure in a client, not the CPA firm's tenure. So, ministerial decree No. 17/2008 is still relevant.

regulator must be interested in the reasons why some accounting firms desperately wanted to keep their clients and managed to find loopholes in the regulation. This raised several questions such as what motivates the accounting firm to do so, who the client is, and what power it has on the auditor. No study so far has addressed this question yet.

Research Contribution

The results of this study will provide additional evidence for Indonesian government, as well other countries', with the advantages of mandatory auditor rotation regulation. Some studies have been conducted set in Indonesia to study the impact of this regulation on audit quality. The results are still inconclusive and bring some debates since some accounting firms find the loopholes so that they can retain their clients longer than the regulation have allowed.

The results of this study will also be beneficial to academic communities as a whole since studies on the impact of this regulation can only be done in a country that has regulated mandatory auditor rotation. While the US government is eager to regulate firm-level rotation, public in the US have divided opinion related to such regulation. Therefore, the results will be beneficial to much larger communities in the world. Lastly, the conclusion on the characteristics of companies that are retained by their auditors can also be beneficial to the regulator by exploiting the loopholes in the regulation. They can assess the impact of the loopholes later on the idea of maintaining higher audit quality. Empirical evidence found in this research can also be used as a base to be considered in future regulation.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Voluntary vs. Mandatory Auditor Rotation

The idea of whether to apply mandatory rotation to accounting firm is more necessary or to let the client and auditor decide their tenure are still debated in the US. Regulator thinks that the tenure in audit industry must be regulated, while some academicians oppose the idea. The basic issue here is how to maintain the auditor's independence. The regulator and some academicians believe the auditor's independence is declined if the tenure is not limited. The logic flows that the longer the tenure and the more income the auditor depends on the client, the more declining its independence.

Some practitioners and academicians disagree with the idea on the negative relationship between auditor's independence with auditor tenure. DeFond & Francis (2005:9) stated that the incidence of audit failures are almost zero. Similar to them, the auditing professions opined that every time the auditor is engaged with a new client, there are two costs that must be considered: (1) cost that relates to study and comprehend client's business and (2) litigation cost. Both costs are interrelated which the auditor is responsible for such unlawful action of their client since the financial report is joint product of both auditor and the client (Kinney, 1999).

The criticism that public poses against the idea of mandatory rotation is related to the logic behind the imposition to switch the auditor. They believe that the business is better off if the government let the auditor and its client to decide their own tenure, and the government does not have to step in. They also believe that a longer tenure is related to more understanding on client's business, lower probabilities of client to commit in fraudulent action, lower audit risk, and more benefits (see DeFond & Francis, 2005 for detail discussion).

Bockus & Gigler (1998) argue that auditor will likely to withdraw if the risk they face in auditing a client is increased. The risk may be a result of both party disagreed on a certain accounting estimate. Antle & Nalebuff (1991) and Dye (1991) propose that auditor's proposition will be accepted by the client if auditor's estimates are close to that of client's. If they never met an agreement on that such estimates, we can predict that client will fire the auditor or, else, the auditor will resign (Dye, 1991).

However, the scenario above is only true if both auditor and client are free to decide their own engagement. In a regime where a law decides an auditor must be replaced, the auditor switching is not due to the disagreement between both party but it is caused by the regulation that decide their separation and the client finds a new auditor. The new auditor may have a little information on this client's reputation and business. Therefore, it is expected that the new auditor will put more skepticism on this engagement.

A higher level of skepticism has two opposite sides. First, it will raise audit fee since auditor has to bear a higher audit start-up cost. If an auditor is replaced with a new one, the new auditor has no guarantee for next year's service since the regulation itself permits the client to come back to the previous one. Since the probability to retain the client is slim, then the audit fee imposed on the new client may be higher than on the normal first time engagement. The lowballing phenomenon addressed by DeAngelo (1981) may not be surfaced since the new auditor does not expect the client will retain them as long as the regulation permits.

The other side of a higher level of skepticism is related to auditor's prudence in auditing new client. If the auditor does not know its client's business or its reputation in the past, the auditor will be more careful to audit this new client. The more prudence the auditor, the lower the litigation cost. Nagy (2005) shows that auditors of ex-Andersen's clients become more conservative in choosing accounting methods that decrease the income. This action is triggered by perception that ex-Andersen's clients bear more risks (Cahan & Zhang, 2006). The proponents of mandatory auditor rotation argue that the regulation will bring higher audit quality because regularly the auditor will face new client.

Auditor Rotation Regulation in Indonesia

Indonesia is among few countries that mandates both partner and accounting firm rotation. This regulation was first enacted in 2002 through the Ministry of Finance decree No. 423. Article 6 verses 4 of the decree stated that an accounting firm may only provide a general audit up to to five consecutive years, while a partner may only lead an audit for three consecutive years in a single client. Later in Article 59 verses 5 and 6 stated that the accounting firm or the partner may still provide the service for one more year if they have signed a contract with their clients for another year. This 2002 decree was then amended in 2003 and finally in 2008. In the last decree, the accounting firm can audit a client up to six consecutive years and after one cooling off year the auditor can re-engage with the same client.

This decree has several implications to the research in auditing. First, this creates some space for research in mandatory auditor rotation, either partner or accounting firm, which most other country cannot test. Second, until the year 2016, mandatory rotations have been conducted by companies in Indonesia at least two times. Therefore, if Siregar et al. (2011), Febrianto & Sugiri (2014), and Junaidi et al. (2014) can only observe single rotation, by the year 2014/2015 more data are already available.

Third, MOF decree No. 17/2008 opens an opportunity for a client to re-engage with former auditor after one year being "parked" by another auditor. The other tactic that may be

exploited is what so called pseudo auditor rotation (Siregar et al., 2011; Febrianto & Sugiri, 2014; and Junaidi et al., 2014). There are two loopholes to exploit from the Article 3 verses 5 and 6 of MOF decree. One, if an accounting firm change the composition of their CPAs and only keep less than 50% of them, then the new accounting firm is different from the former; or, two, if the company changes its name and only maintains less than 50% of the former CPAs in the new firm, then the new accounting is recognized as different from the former.⁹ Luckily, the regulation is silenced on the foreign affiliation, so even though a client is said to change its local auditor, the foreign affiliation retains the same, and even situated at the same office address.

The question that may quickly follow is whether this behavior will decrease the quality of audit or not. Nagy (2005) is one of many that disagrees with the idea of mandatory rotation. He provided evidence of a higher skepticism exercised by auditors of ex-Andersen clients. He takes it as an example of a mandatory rotation—while in fact it is not. Later Knechel & Vanstraelen (2007) provided evidence that may contradict to Nagy's (2005). They show that low audit quality in a shorter term tenure is more likely to be caused by either lack competence or lack of independency. Moreover, the low audit quality in a longer tenure period may due to the loss of independency. Their results reject a claim made by Carcello & Nagy (2004) that audit failures observed in the first years of engagements are caused by problems on the client's side. Their results showing the fact that happened are on the opposite.

Some studies are not supportive to the idea that audit quality will be increased after the rotation. Johnson et al. (2002) found evidence that auditors with short tenure (2-3 years) show a higher level of unexpected accrual as compared to auditors with medium tenure (4-8 years). Moreover, samples that have longer tenure (>9 years) do not show a statistically significant difference to samples with medium tenure. Myers et al. (2003) concluded that longer auditor tenure is correlated with higher earnings quality. They argue that there is no evidence to support the claim that mandatory rotation can increase financial reporting quality.

However, there is a study that does support the mandatory rotation idea. Dopuch et al. (2001) clearly have the evidence that auditors exhibit lower judgment bias when they are in a mandatory rotation regime than when they are in voluntary rotation regime. Considering the conclusions that Dopuch et al. (2001) have, studies that do not support the mandatory rotation idea, e.g. DeFond & Francis (2005), are failed to quote Dopuch et al.'s (2001) study. The importance of their study is significant and their study should be published on post-Enron debacle and post-SOX. Like Dopuch et al. (2001), Carey & Simnett (2006) conclude that there is a decline in audit quality which has longer audit partner's tenure.

To summarize, hypothetically, auditors will show different behavior if they are in different circumstances, in this case, whether they are in a mandatory or voluntary rotation regime. This is logical since the essence of a rotation is to limit, if not to cut, the dependency of the auditors to their client. The absence of rotation regulation will be functioned as an incentive to auditors to retain their clients as long as possible. The longer the tenure, the more income will flow to the accounting firm from a certain client and the higher the probability the auditors to be dependent financially from their clients. Certainly, it cannot be said that an auditor become financially dependent on a certain client; and perhaps it never be. However, it is theoretically logical that mandatory rotation can cut the likelihood of an auditor to be dependent on its client. Therefore, we can expect that audit quality is higher in companies that rotate their auditors mandatorily than in companies that rotate their auditors voluntarily. The first hypothesis is below.

⁹ For our study purpose, we call this as dissolve and reform strategy.

H1 Audit quality of companies that rotate their auditors mandatorily is higher than companies that rotate voluntarily.

Related to the loopholes found in the MOF decree, it can be concluded that the loopholes in that decree are exploited by the accounting firms and their clients to create a pseudo mandatory auditor rotation. This pseudo rotation phenomenon is clearly contradicted to the regulator's idea that rotation is needed to preserve audit quality. If an auditor agrees to take advantage of the loopholes available in the Article 3 verses 5 and 6 of that MOF decree for the sake of retaining certain client(s), then it can be expected that the auditor's independency on that client is lower than other client that is audited by the same auditor. Likewise, the audit quality of retained client is also lower than clients of other auditors that do not exploit the regulation's loopholes. The second hypothesis is as follows:

H2 Audit quality of companies that pseudo-mandatorily rotated their auditors are lower than companies that mandatorily rotated their auditors.

The third hypothesis is based on the idea that bigger accounting firms will deliver higher audit quality than that of smaller ones (for example see DeAngelo, 1981). The idea may hold if a client switches accounting firms of different and similar size. We may expect using the argument that bigger accounting firms have higher quality than that of smaller one. The audit quality among firms switching from bigger to bigger and from smaller to smaller accounting firms will be equal. While on the contrary, switching among firms of different size will be unequal.

H3 Audit quality of companies that switch auditors between bigger accounting firms is different than that of that switch from auditor of different size, i.e. the one that switches between bigger accounting firms has the highest audit quality.

The Characteristics of Pure and Pseudo-Rotating Companies

If the auditor only has one or several years of tenure with a client, the accumulative fees received from that client may not be as significant as total income of the auditor. However, as the tenure gets longer and more services rendered, it is not impossible for the auditor to compromise its independency. The bigger the client is, more probability of such behavior will occur. In fear of losing big pocket clients, auditor will find a way to retain them.

The problem on the dependency is very much related to the ratio between the number of accounting firms and auditees. The competition is stiff among accounting firms while the market is relatively small and does not grow. Since the quality among accounting firms differs each other, clients will always find an auditor with a good quality. The quality is not always the factor of consideration. Clients actually will find an auditor that suits their needs. In sum, it is natural to expect a close relationship between auditor and its client and this relationship will last as long as possible.

If the auditor has a long relationship with its client while regulation prohibits this, resistance will emerge. This resistance may not always be in the form of refusal of the regulation since the regulation may have some loopholes and auditor can exploit them. Regarding this MOF decree, pseudo-mandatory rotation is the manifestation of this resistance.

The question is, how important is a client to an auditor so that the CPA firm agrees to dismiss more than 50% of its CPAs and form a new firm; or dismiss the firm itself and form a new one while only maintain not more than 50% of old CPAs? The client company that force the accounting firm to take the advantage of the loopholes must be significantly different from any other companies. Therefore, the third hypothesis as follows:

H4 Characteristics of companies that pseudo-mandatorily rotated their auditors are different from companies that pure mandatorily rotated their auditors.

RESEARCH METHOD

Samples

PMK (MOF decree) No. 17/2008 is a follow-up regulation of KMK No. 423/2002. In this regard, the selection of the sampling companies that conducted the mandatory and voluntary rotation of auditor is determined by the observation on auditor switch which has occurred since 2003. The determination of whether a rotation or changing of the auditor in 2003—or at the latest in 2004¹⁰—was a mandatory rotation or not has to be conducted through the observation of auditors within the last five years before the rotation year. The replacement of auditor occurred in 2003 (or 2004) is called as a mandatory rotation if since 2002 (or 2003) a client has been audited by the same auditor for five consecutive years. Otherwise, if the audit period is less than five years, it can be called a voluntary rotation. The same procedure would be applied to the observation of the replacement of auditor occurred after the enactment of PMK 17/2008.¹¹ The samples are selected from the nonfinancial companies listed on the Indonesia Stock Exchange (IDX) from 2002 to 2015. For the case of newly listed firms in IDX, they have to be, at least, already six-year-old when the observation year is started.

Definition of Operational Variables and Hypotheses Testings

Hypothesis 1, 2 and 3

Following Becker et al. (1998), DeFond & Subramanyam (1998), Bartov et al. (2000) and Nagy (2005), this study uses discretionary accrual as a proxy for audit quality.¹² The discretionary accrual is estimated by using the Jones’ model that was modified by DeFond & Jiambalvo (1994) and DeFond & Subramanyam (1998). This study uses the following model to estimate the discretionary accrual.

$$\frac{TA_{i,t}}{A_{i,t-1}} = \alpha \frac{1}{A_{i,t-1}} + \beta_1 \left(\frac{\Delta REV_t}{A_{i,t-1}} \right) + \beta_2 \left(\frac{PPE_t}{A_{i,t-1}} \right) + \varepsilon_t \quad (1)$$

where:

TA_{i,t} = accrual total of firm i in year t;
 A_{i,t-1} = total assets of firm i in year t-1;

¹⁰ KMK (MOF decree) No. 359/2003 permits audited company to be audited by the same auditor even though the five years limitation has been reached if the company and its auditor have already signed an agreement to audit in 2003.

¹¹ After 2008, mandatory rotation is after six years.

¹² Interested readers can consult with Krishnan (2003) to follow the logic behind the use discretionary accruals as a proxy for audit quality.

ΔREV_t = net change in income of firm i in year t ;
 $PPE_{i,t}$ = gross value of PPE of firm i in year t ; and
 ε_i = error term.

The discretionary accrual is the errors aforementioned above (DeFond & Subramanyam, 1998; Francis & Yu, 2009). This study uses an absolute unstandardized residual as a proxy for discretionary accrual. Later, that discretionary accrual value is incorporated into the following equation below:

$$AbsUR_i = a + b_1(DRot_{i,t}) + b_2(Pseudo_{i,t}) + b_3(DBB_{i,t}) + b_4(DBK_{i,t}) + b_5(DKB_{i,t}) + \theta_{i\theta} \quad (2)$$

Where:

$AbsUR_i$ = cross-sectional absolute value of the unstandardized residual of firm i ;
 $DROT_{i,t}$ = dummy variable: 1 for the auditor mandatory rotation, 0 others;
 $Pseudo_{i,t}$ = dummy variable: 1 if the auditor rotation is pseudo-mandatory, 0 if others;
 $DBB_{i,t}$ = dummy variable: 1 if the auditor rotation occur among Big 4, 0 if others;
 $DBK_{i,t}$ = dummy variable: 1 if the auditor rotation occur from Big 4 to the smaller accounting firms, 0 if others;
 $DKB_{i,t}$ = dummy variable: 1 the auditor rotation occur from the smaller accounting firms to Big 4, 0 if others;
 θ_i = error terms.

Equation (2) is used for testing the first to the third hypothesis. The first hypothesis is accepted if coefficient b_1 is statistically different from zero. Likewise, the second hypothesis is accepted if coefficient b_2 is statistically different from zero. Meanwhile, coefficients b_3 to b_5 , which are testing the hypothesis four, are used to assess the differences between accounting firms of different sizes.

Hypothesis 4

The fourth hypothesis tests the differences between firms that implement pseudo-mandatory rotation and firms that implement the pure mandatory rotation. The regulation of mandatory rotation is made in order to ensure the high level of independency exercised. If an accounting firm is willing to utilize the regulatory loopholes by retaining a certain client, we can expect that the retained client has different characteristics compared to those who are not being retained. Therefore, the testing of the fourth hypothesis is the testing in the difference of the two group companies' characteristics.

The point of observation is when an accounting firm changes its name (including the personnel of public accountants/CPAs) and continuously retains the client after the sixth year. This is possible since changing name does not violate the Article 3 verse 4 and 5 of decree No.17/2008. According to the Article, the client "X" has already been considered changing its auditor in seventh year to the auditor "B", alias "A".

One of the most relevant company's characteristics that encourage accounting firms to change their name is the amount of auditing fee received from the clients. However, the data on auditing fee is not available in Indonesia. An auditing fee can be represented by the company's asset value or market capitalization or other financial characteristics. The hypothesis is being tested by comparing the two groups' characteristics on the year of the rotation.

Results

We divide our analysis into two sections. Section one is for the first two hypotheses tests’ results and section two is for the fourth hypothesis. Furthermore, as readers can find in the descriptive statistics subsection, both sections have different final samples due to the different requirements in sampling procedures.

First, second, and third hypotheses

Samples are non-financial companies listed from 2003 to 2015. We check auditor of each samples as far as 1998 to 2003. Sampling criteria are also based on the regression models (1) and (2). The resulting samples are as in Table 1 below.

Table 1: Samples

Description	Number
Nonfinancial samples-companies listed 1998-2015	3978
Nonfinancial samples-companies listed 1998-2001	(884)
Samples that do not perform audit rotation in 2002 – 2015	(1747)
Incomplete data in 2002-2015	(490)
Total samples-companies	857

Descriptive statistics are presented below.

Table 2: Descriptive Statistics (N=857)

Variables	Minimum	Maximum	Mean	Modus (freq)	Std. Deviation
ABSUR	0.00019	5.09270	0.12777	n.a	0.28930
DROT	0	1	0.17	0 (714)	0.372
PSEUDO	0	1	0.06	0 (804)	0.241
DBB	0	1	0.34	0 (506)	0.474
DBK	0	1	0.07	0 (795)	0.259
DKB	0	1	0.09	0 (782)	0.281

Table 2 shows the minimum and maximum value of ABSUR which are 0.00019 and 5.09270. Higher residual indicates higher earnings management or lower audit quality. Of 857 auditor rotation (DROT), 714 rotations are voluntary and 143 are mandatory. Among 53 out of 857 rotations are pseudo (PSEUDO), 351 rotations are between Big 4 accounting firms (DBB), 62 rotations are from Big 4 to smaller accounting firms, and 75 rotations are from smaller accounting firms to Big 4 ones. There are 430 rotations from a non-Big 4 to another non-Big 4 accounting firms during our study.

Table 3: Regression results

Variables	Beta	t & F value	Significance
Constant	0.175	12.191	0.000***
DROT	-0.075	-1.909	0.057**
PSEUDO	0.007	0.127	0.899
DBB	-0.086	-3.942	0.000***
DBK	-0.066	-1.694	0.091*
DKB	-0.019	-0.433	0.665
F		4.443	0.001**
Adjusted-R ²		0.019	

*, **, *** significance when alpha is 10%, 5%, and 1%, respectively.

The results in Table 3 indicate that the model has F-value 4.443 and statistically significant with adjusted-R² is 1.9%. The DROT is negative, marginally and statistically significant. The negative and significant coefficient indicates that the discretionary accruals of firms that mandatorily rotate their auditors is lower than that of voluntarily ones. Since lower discretionary accruals means higher audit quality, we can conclude that firms that mandatorily rotate their auditors have higher audit quality. This result supported the first hypothesis.

When the test is between pseudo mandatory rotation and others (PSEUDO), the result indicates that no statistically significant difference between the earlier and the later. Insignificant result tells us that neither pseudo mandatory rotation nor other types of rotation resulting in higher audit quality. This is quite interesting since DROT variable indicates that mandatory rotation is related to higher audit quality and we suspect that pseudo type of rotation will have a lower audit quality. This result cannot corroborate our second hypothesis.

Moreover, our test provides some interesting evidences. First, discretionary accruals of firms that switch between two Big 4 accounting firms (DBB) are statistically and significantly lower than that of other switching firms. It indicates that audit quality of auditees that switch from one of a Big 4 accounting firm to the other are higher than that of auditees that switch between accounting firms of other types.

The same conclusion can also be drawn when we compare the discretionary accruals of auditees that switch from a Big 4 accounting firm to a lower one (DBK) to other types of switching. The coefficient is negative and statistically significant. It means that companies that move from a bigger accounting firm to a smaller one have higher audit quality than that of other companies that use other types of switching, but still not better than bigger to bigger switching.

In general, if we look at the coefficients, we can conclude that DBB type of switching has the lowest discretionary accruals than DBK type. Above all, the DKK type of switching has the largest value of discretionary accruals. Since we do not have a statistically significant coefficient of DKB, we can only conclude that DBB type of switching has the highest audit quality, following by DBK and DKK type of switching. These findings support out third hypothesis.

Fourth hypotheses

The interesting question related to the auditor rotation is why some accounting firms “voluntarily and willingly” dissolve their firms and reform a new one, while still maintaining their affiliation. The motive is obvious, i.e. to take advantage of the loopholes in the regulation so that important clients are retained. This test is aimed to uncover the motives behind the behavior of some accounting firms.

Table 4: Distribution of rotating accounting firms

Year	Pure mandatory rotation		Total	Pseudo mandatory rotation		Total	Voluntary		Total	Grand total
	Big 4	NonBig 4		Big 4	NonBig 4		Big 4	NonBig 4		
2003	2	5	7	9	0	9	25	37	62	78
2004	1	2	3	4	4	8	17	56	73	84
2005	0	1	1	0	0	0	29	32	61	62
2006	0	0	0	0	1	1	44	41	85	86
2007	1	0	1	0	0	0	26	31	57	58
2008	0	1	1	0	0	0	8	29	37	38
2009	1	9	10	5	10	15	2	37	39	64
2010	0	2	22	9	5	14	46	29	75	91
2011	0	3	3	0	1	1	5	41	46	50
2012	1	1	2	0	0	0	20	29	49	51
2013	0	2	2	1	0	1	7	19	26	29
2014	0	0	0	0	1	1	5	39	44	45
2015	0	5	5	2	16	18	53	21	74	97
Total	6	31	37	30	38	68	287	441	728	833
(%)	(16%)	(84%)	(5%)	(44%)	(56%)	(8%)	(39%)	(61%)	(87%)	(100%)

Table 4 tells us that number of rotations occurred in 2017 are 97 rotations. Voluntary rotations are on the highest type, i.e. 728 out of 833 rotations, followed by pseudo mandatory rotations (68 rotations), and pure mandatory are the lowest (37 rotations). The table also indicates that non-Big 4 accounting firms have a larger portion of rotating clients, i.e. 405 clients, while Big 4 accounting firms only audited 323 of them. Our samples of pure mandatory rotations are dominated by non-Big 4's clients, while pseudo mandatory rotations are slightly dominated by non-Big 4's clients. On the other side, voluntary rotations are also dominated by non-Big 4's clients.

Table 5: Financial characteristics of rotating companies (in billion rupiahs)

Characteristics		Min	Max	Mean	Std. Deviation
Assets	Pure-mandatory	107	66,824	3,694	11,426
	Pseudo-mandatory	63	111,774	7,857	18,899
	Voluntary	0.567	242,392	4,448	14,789
Sales	Pure-mandatory	13	22,324	1,730	4,074
	Pseudo-mandatory	13	129,991	7,331	18,872
	Voluntary	(5)	184,196	3,065	10,050
Net income	Pure-mandatory	(64)	1,985	113	353
	Pseudo-mandatory	(2,110)	14,366	850	2,646
	Voluntary	(4,603)	15,489	218	1,204
Common stock market value	Pure-mandatory	13	24,080	1,344	4,042
	Pseudo-mandatory	(3,766)	49,310	3,645	8,761
	Voluntary	(11,250)	102,043	1,749	6,276

Table 5 provides some financial characteristics of samples. Those characteristics may be related to the motive of an accounting firm to engage in one of two types of mandatory rotations.¹³ The mean value of all characteristics of pseudo rotation groups are the largest among the other two groups. If we compare between pure mandatory versus voluntary rotations, we can conclude that pure mandatory rotation group is the lowest among the three group. This fact is interesting since, as Table 4 shows, more auditees belong to pseudo mandatory group than pure mandatory one. Even though the largest portion of our samples belong to voluntary group, the

¹³ We cannot certain which client that has become the motive for an accounting firm to take the dissolve-and-reform action. One indication may be when a certain client has reached its six-year limit before the accounting firm dissolve and reform itself. This problem of identification may become our weaknesses.

pseudo mandatory rotation group in average has the highest value from each of financial characteristics observed.

We then test groups in pair and the summary of the results are presented in Table 6 below:

Table 6: Independent sample t-test results

	Characteristics	p-value
Assets	Mandatory vs. voluntary	0.217
	Pure vs. pseudo	0.224
	Pseudo vs. voluntary	0.152
Sales	Pure vs. voluntary	0.760
	Mandatory vs. voluntary	0.146
	Pure vs. pseudo	0.021**
Net income	Pseudo vs. voluntary	0.070*
	Pure vs. voluntary	0.422
	Mandatory vs. voluntary	0.087*
Common stock market value	Pure vs. pseudo	0.027**
	Pseudo vs. voluntary	0.055*
	Pure vs. voluntary	0.598
	Mandatory vs. voluntary	0.160
	Pure vs. pseudo	0.069*
	Pseudo vs. voluntary	0.085*
	Pure vs. voluntary	0.698

, **, * significance when alpha is 10%, 5%, and 1%, respectively.*

The results of independent sample t-test presented in Table 6 show that we cannot find statistical differences between mandatory and voluntary group based on all financial characteristics tested, except for net income. When using net income, it indicates that there is a marginal statistical difference between mandatory versus voluntary groups. We also cannot provide evidence that, in terms of assets, those groups are of different size. Therefore, we can conclude that assets may not be a factor for choosing type of rotation, especially between pure and pseudo mandatory rotations.

The interesting findings are statistically and significantly different between pure versus pseudo mandatory rotation. Sales, net income, and common stock market value between companies of those groups may become factors for accounting firms to choose whether to dissolve and reform their accounting firms or not. The results imply that auditees with high sales or net income or common stock market value may trigger an incumbent accounting firm to dissolve the firm and, then, form a new one, so such firm can keep one or more auditees as their clients for another six years. Logically, auditees with huge net income can pay more auditing fees than one with lower net income. Client with a deep pocket is worthy to be kept, even the accounting firm has to dissolve their firm before re-forming a new one. One indication of such action is by looking at the foreign affiliation of accounting firm.¹⁴

Conclusion and future research

This research is based on the idea of whether mandatory auditor rotation will result in higher audit quality. The Indonesian government enacted the regulation to mandate auditor rotation in

¹⁴ As example, INCO was audited by Hadi Sutanto and partners from 1999-2003 (five years). According the regulation, INCO must change its auditor from 2004. In fact, the auditor change to Haryanto Sahari and partners. However, both accounting firms were affiliated with PWC.

2002 which since then mandatory rotation seems to be an accepted practice in Indonesia. However, the reality is that accounting firms found their own way to deceive the regulation of mandatory rotation. In a newspaper published in 2015, a senior auditor in Indonesia¹⁵ stated that changing accounting firm's name, and changing partners, including to set some partners to be inactive partners of the firm or recruiting new partners are strategies used to take advantage of the loopholes in the regulation. The motive is unstated, but public can guess as it is related to accounting firm's sustainable income. By applying that strategy, an accounting firm can keep one or more important, deep pocket clients with them as long as they wish. Instead of changing its auditor after the sixth year, the company is still the auditee of the old accounting firm since the (local) auditor has "changed"—even though the foreign affiliation is still the same—and no regulation has been violated. This is what we call as pseudo mandatory auditor rotation.

Our study finds that auditees in this pseudo mandatory rotation group have higher sales, net income, and market value of common stocks than that of auditees in pure mandatory rotation group. This finding confirms our hypothesis. Financial motives seem to be behind the choice of the auditor to dissolve and reform the firm itself though competition among accounting firms and small number of deep pocket clients have urged accounting firms to find a way to maintain their income. If the idea behind the mandatory rotation is to preserve auditor independency after a long auditor-client relationship, then the question of the effectiveness of such regulation is important.

Our test of the first hypothesis confirms that companies which belong to mandatory rotation group have higher audit quality than that of other groups. We, then, test the audit quality of companies that belong to pseudo mandatory rotation and we cannot find a corroborative evidence which pseudo mandatory rotation companies have higher audit quality than others. When we test on the differences of audit quality of companies that switching accounting firms from same or different sizes, the results indicate that audit qualities of auditees the switch between Big 4 accounting firms are higher than that of auditees that switch between accounting firms of different size. The higher discretionary accruals or the lowest audit quality is found among samples that move between smaller accounting firms. These latter findings give empirical support to previous studies back to the work of DeAngelo (1981) earlier that higher audit quality is related to bigger accounting firm.

The main limitation of our studies is related to the measurement of the audit quality. A qualified audit, by definition, is an audit performed by a competent and independent auditor (DeAngelo, 1981). We choose discretionary accruals as the measurement of audit quality while, in fact, known as measurement of earnings management. We base our logic on the idea that a good auditor will find an abnormal accruals (i.e. equals to competence) and will not allow those abnormal accruals to be included in the audited financial statement (i.e. equals to independence). Further studies may consider other alternatives to measure audit quality.

The second limitation is related to the timing of measuring audit quality. In this study, we only observe audit quality at the time of the switching. This is contrary to common belief that the first years of audit is associated with higher audit risk. Future research may consider to use longer time period to measure audit quality of single sample.

Future studies should explore the reason behind strategies used by accounting firm even more. We limit our attention only on the financial aspects, while non-financial factors may play some parts. For example, key persons in both corporations may influence the decision. We also

¹⁵ Business Indonesia, May 12, 2015. The article was retrieved from <http://starbrainindonesia.com/berita/media/40971/3/rotasi-audit-dihapus-kap-bakal-menggelia> on May 29, 2017.

do not explore which client(s), among some, that drive such behavior. The last important aspect future research must consider is the fact that all local accounting firms that are affiliated with Big 4 accounting have chosen the dissolve and reform strategy, so the classification of pseudo or pure rotation may need to be reconsidered in the future.

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