The Effect of Audit Committee Financial Expertise, Auditor Specialists Experience, and Audit Rotation on Audit Quality

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This study aims to determine the effect of financial expertise of audit committee, specialist expertise of auditor, and audit rotation on audit quality. The method of determining the sample used is purposive sampling so that the sample obtained as many as 255 companies in the year 2014-2016. Independent variables in this research are financial expertise of audit committee, auditor specialist expertise, and audit rotation. The dependent variable in this research is audit quality which has a proxy with earnings management. The hypothesis in this study was tested by ordinary least square regression. The study found that audit committee financial expertise has no significant effect on audit quality. The specialist expertise of auditors has a positive and significant impact on audit quality. Audit rotation of both public accounting firms and public accountants has no significant effect on audit quality.

Key words: *Audit quality, earnings management, financial expertise, audit committee, audit rotation.*

Introduction

Financial statements are used as a guide in making decisions by management and investment decisions by investors in a company. As such, people need reliable information in financial statements to not make wrong decisions as it discloses all facts of a firm during one period (Simamora & Hendarjatno, 2019). Therefore, an audit of the financial statements is needed. According to Arens (2010), auditing is an examination conducted by an independent party on financial statements which have been prepared by the client's management to accumulate or collect evidence as well as evaluating the evidence to assess the reasonableness of the financial

statements. The general purpose of an audit is to express an opinion on the reasonableness of the financial statements, in all material respects, the financial position as well as results of operations, and cash flows in accordance with generally accepted accounting principles.

However, even though the financial statements have been audited, information in the financial statements which are not in accordance with the regulation are still found due to low audit quality. This is indicated from many cases of financial scandals both in Indonesia and abroad that show the low quality of audits. In a recent case in 2017, the PWC public accounting firm was unable to detect fraud committed by British Telecom, which is a giant British company, in one of its lines of business in Italy. PWC's relationship with British Telecom has lasted for 33 years. British Telecom was raising the firm's revenue through fake contract extensions and invoices as well as fraudulent transactions with vendors. Ironically, this practice of fraud has occurred since 2013[1].

Based on the financial scandal case above which is due to the low quality of audits, quality audits is an important matter to increase the credibility of financial statements. Audit quality in this study is proxied by earnings management. The lower the level of earnings management, the better the audit quality is. High earnings management reflects the failure of auditors to find fraud and as such, the audit quality worsens. Some factors that influence audit quality in this study are the audit committee's financial expertise, auditor specialist expertise, and audit rotation which include the rotation of the public accounting firm and the rotation of the public accountant's partner.

Audit quality can be associated with audit committee. Audit committee that has financial expertise is able to find any discrepancies between the information in financial statements and the actual financial condition of the firm. As such, they can detect fraud committed by management in reporting firm's information in the financial statements. According to Badolato (2014), audit committee's financial expertise can be associated with earnings management, and the results of his research suggest that audit committee's financial expertise in accounting, supervisors, and finance can inhibit earnings management in the firm and thus audit quality increases.

In addition to audit committee's financial expertise, specialist expertise of auditor also influences audit quality. A specialist auditor is defined as auditor who has a considerable experience in auditing clients in the same industry. Auditor who has many clients in the same industry will have better knowledge and understanding of firms' internal controls, business risks, and audit risks in the industry. This experience has an impact on the increasing

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[1] www.wartaekonomi.co.id

understanding of auditor on specific audit risks in the industry (Fitriany, 2015). According to Jaggi (2014), specialist auditor expertise is crucial and has an impact on audit quality.

Audit quality is also closely associated with audit rotation. According to Ishak (2015), regulations about auditor rotation were made to improve audit quality based on the assumption that the longer the relationship between the auditor, both Audit Partner (AP) and Public Accounting Firm (KAP), with their client, the reduced the auditor independence. According to Nadia (2015), KAP rotation has a positive and significant effect on discretionary accruals. Arthur (2017) also states that audit partner rotation can improve audit quality when the audit firm is an industry specialist.

Specifically, this study intends to determine the effect of audit committee's financial expertise, auditor's specialist expertise, and audit rotation on audit quality. The sample determination method used in this study is purposive sampling and we obtained a sample of 255 companies in year 2014-2016. This study finds that an audit committee's financial expertise does not significantly influence audit quality while auditor's specialist expertise has a positive and significant effect on audit quality. Lastly, audit rotation of both public accounting firms and public accountants do not significantly influence audit quality.

This research paper will continue with the following arrangement: literature review; description of variables and sample as well as research models; the results of empirical analysis and hypothesis testing; and summary or conclusion of the study, including suggestions for further research.

Literature Review

Agency theory exhibits that separation of agent (management) from the principal (owner) leads to a problem of moral danger because the agent (management) may pursue their own interests at the expense of the principal (owner) (Jensen & Meckling, 1976). Agents and principals are two or more who work together for the management of firm, which both of whom have their own motivation to perform their respective duties. The moral hazard problem is reinforced by information asymmetry between the two parties: the manager, who runs the company, knows more about the firm and its future prospects than the shareholders. Information asymmetry is a situation where one party has more information about financial transactions than another party (Alzoubi, 2016). The presence of information asymmetry between managers and shareholders will lead to earnings management practices because shareholders have little resources, motives, or access to related information to monitor and control manager's activities. One way to reduce the consequences and costs associated with moral hazard is to hire an external third party, which is an auditor, to audit the firm's books, records and financial statements, and thereby reduce information errors between firm's agents and principals (Corbella, 2015).

Audit quality includes all possibilities when an auditor who is auditing the client's financial statements find violations that occurred in the client's accounting system and reports them in the form of audited financial statements in which auditor's responsibilities are based on auditing standards and the relevant public accountant code of ethics (Pertiwi, 2016). Audit quality is the probability or likelihood that auditor discover and report on violation in their client's accounting system.

Arthur (2017) and Kim (2015) use discretionary accrual as proxy for audit quality in their research. High discretionary accruals indicate fraud accounting or earnings management (Nadia, 2015). High-quality auditors prefer to inhibit and detect dubious accounting practices, and report material errors as well as those that are not in accord with the rules more than low-quality auditors do. As high-quality auditors have the experiences, resources, and incentives to separate information component from errors, they can enhance information of discretionary accruals by reducing management's aggressive and opportunistic accrual reporting.

The Effect of Financial Expertise of Audit Committee on Audit Quality

The existence of an audit committee in a firm provides more oversight to the firm's management performance as well as providing accurate and correct information and lastly, helps assist the board of commissioners in analyzing the firm's financial statements (Pertiwi, 2016). One of the responsibilities of an audit committee is to identify, assess, and manage risk of financial uncertainty as well as continuously improving the financial system, the integrity of financial statements, and financial disclosures (Moeller, 2016). According to Amar (2014), there is no significant relationship between financial expertise of audit committee and earnings management practices, which are proxied by discretionary accruals. This indicates that there is no significant relationship between audit committee financial expertise with audit quality. Meanwhile, according to Badolato (2014) and Khamoussi (2016), financial expertise of audit committee has a significant negative relationship with earnings management, which means it has significant positive relationship with audit quality. Audit committee's expertise impedes or inhibits earnings management. Thus, audit committee's financial expertise is associated with a low level of earnings management. Based on the description above, the research hypothesis of this study can be stated as follow:

H1: The financial expertise of audit committee has positive effect on audit quality.

The Effect of Specialist Expertise of Auditor on Audit Quality

Fitriany (2015) posits that the specialist expertise of auditor in certain industries ensures that an auditor has adequate ability and knowledge compared to an auditor who doesn't have specialist expertise. According to Khamoussi (2016), auditor specialization has an insignificant

negative relationship with earnings management. According to Pertiwi (2016), auditor's industry specialization has no effect on audit quality. Meanwhile, according to Jaggi (2014), auditor's industry specialization is crucial and has an impact on audit quality which is proxied by discretionary accruals. Zhou and Elder (204) posit that industry specialist of auditors is associated with lower earnings management only in the year of SEO (seasoned equity offering firms). Industry specialization can preserve audit quality when the auditor accepts new clients and there is a decrease in audit quality for new clients if the auditor is not an industry specialist. Based on the description above, the following hypothesis can be posed:

H2: The specialist expertise of auditor has positive effect on audit quality.

The Effect of Rotation of Public Accounting Firm on Audit Quality

The debate over whether auditors should be rotated during a specific tenure with a client (mandatory auditor rotation) has its proponents and opponents (Nasution & Östermark, 2013; Nawangsari & Iswajuni, 2019) as its effect on audit quality. According to Corbella (2015), there is a significant negative relationship between audit partner changes and audit quality in sample of public companies audited by non Big4 public accounting firm and no significant relationship between audit firm rotation and audit quality in the full sample and in the sub sample of firms audited by public accounting firm Big4. According to Nurhayati (2015), the rotation of public accounting firm has no effect on audit quality, which means that the rotation of public accounting firm is not the cause of improved audit quality. Nadia (2015) also states that KAP rotation has a significant positive effect on discretionary accruals. Firms that have KAP rotations have high discretionary accruals. Ishak (2015) states that the industry specialization of public accounting firm has a positive effect on audit quality. Based on the description above, the hypothesis can be stated as follow:

H3: Rotation of public accounting firm has positive effect on audit quality.

The Effect of Rotation of Public Accountant Partner on Audit Quality

According to Ishak (2013), regulations about auditor rotation were made with to improve audit quality based on the assumption that the longer the relationship between auditor (both the public accountant (AP) and the Public Accountant Office (KAP) with his client, the less the auditor independence. The existence of rotation of public accounting can preserve independence between auditors and their client and thereby, the auditor will report any errors or fraud which exist in the financial statements. As such, the opportunity for earnings management will be reduced and the audit results are more qualified. According to Corbella (2015), changes in the partner of public accountants are significant negatively related with audit quality. Meanwhile, according to Arthur (2017), rotation of audit partners can improve audit

quality when the audit firm is an industry specialist auditor. Kurniasih (2014) also states that audit rotation has significant positive effect on audit quality which indicates that audit rotation has a big influence on the quality of independent auditing results. Based on the description above, the hypothesis can be stated as follows:

H4: Rotation of public accountant has positive effect on audit quality

Research Methodology
Sample and Data Source

The population in this study are manufacturing firms listed on the Indonesia Stock Exchange during the years 2014-2016. The appropriate selection sample was obtained by using purposive sampling, which is the sampling technique with certain considerations (Anshori & Iswati, 2009) as presented in Table 1 below.

Table 1: Sample Criteria

No	Sampling Criteria	Year			Total
		2014	2015	2016	
1	Listed manufacturing firms in 2014	142	142	142	426
2	Firms which don't publish financial statements and annual reports for a continuous period of year 2014-2016 on the IDX	(24)	(24)	(24)	(72)
3	Delisted firms during year 2015-2016	(2)	(2)	(2)	(6)
4	Firms use non-IDR currency	(25)	(25)	(25)	(75)
5	Incomplete data of firms	(6)	(6)	(6)	(18)
Total samples		85	85	85	255

Definition of Operational Variables
Audit Quality

Audit quality is the probability that auditor find and report on violation in their client's accounting system. Audit quality is measured by discretionary accruals (Arthur, 2017 and Kim, 2015). In this study, discretionary accruals are calculated annually, which are year 2014, 2015 and 2016, in the following steps:

1. Calculating total accruals

$$TAC_{it} = NI_{it} - CFO_{it}$$

Notes:

TAC_{it} : Total accruals of firm i in period t

NI_{it} : Net income of firm i in period t

CFO_{it} : Operational cash flow of firm i in period t

2. Total accruals are estimated with the following regression equation:

$$\frac{TAC_{it}}{TA_{it-1}} = \propto_1 \left(\frac{1}{TA_{it-1}}\right) + \propto_2 \left(\frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{it-1}}\right) + \propto_3 \left(\frac{PPE_{it}}{TA_{it-1}}\right) + \propto_4 ROA + e$$

TA_{it-1} : Total assets of firm i in period t-1
ΔREV_{it} : Change in revenue of firm i from period t to period t-1
ΔAR_{it} : Change in revenue of firm i from period t -1 to period t
PPE_{it} : Gross value of fixed assets of firm i in period t
ROA   : Return on asset of firm i in period t

3. Calculating discretionary non-accruals
By using total accrual regression results, we acquire the coefficients α1, α2, α3, α4 to estimate the value of non-discretionary accruals:

$$NDAC_{it} = \propto_1 \left(\frac{1}{TA_{it-1}}\right) + \propto_2 \left(\frac{\Delta REV_{it} - \Delta AR_{it}}{TA_{it-1}}\right) + \propto_3 \left(\frac{PPE_{it}}{TA_{it-1}}\right) + \propto_4 ROA + e$$

4. Calculating discretionary accruals
Discretionary accruals can be calculated after obtaining the total value of the firm's accruals (TAC) and the value of non-discretionary accruals (NDAC). The formula for calculating company discretionary accruals is on follow:

$$DAC_{it} = TAC_{it} - NDAC_{it}$$

5. Earnings management is the absolute value of discretionary accruals.
6. Audit quality is the negative value of the discretionary accruals' absolute value.

The Financial Expertise of Audit Committee

The criteria for audit committee to have financial expertise was that it obtained the attributes through one of the following methods: Education and experience 1) in the position as financial or accounting officer, controller, public accountant, or auditor, or 2) in the position that have similar function; Experience in overseeing financial or accounting officials, controllers, public accountants, or auditors (or individuals who perform similar functions) actively; Experience in supervising or evaluating firms or public accountants in preparing, auditing, or evaluating financial statements; or other relevant experience (Badalato, 2014). The audit committee's financial expertise is a dummy variable, 1 for the audit committee which has financial expertise, and 0 for the audit committee which have non-financial expertise (Amar, 2014).

The Specialist Expertise of Auditor

Specialist auditor represents an auditor's expertise and audit experience in a particular industry (Pertiwi, 2016). Specialist expertise of auditor is measured by calculating the percentage of KAP market share in the industry (Zhou & Elder, 2004; Ishak, 2013, & Andreas, 2012). The auditor is categorized as a specialist if the KAP client's market share is greater than 15%. This variable is measured by a dummy variable, 1 for auditor who has specialist expertise, and 0 for auditor who isn't a specialist.

The Rotation of Public Accountant Firm

In Fitriany's (2015) research, the rotation of a public accounting firm is measured by a dummy variable, 1 if a firm changes the public accounting firm in the financial year, and 0 if the public accounting firm is the same as previous year.

The Rotation of Public Accountant Partner

The rotation of public accountant partners is measured by a dummy variable, 1 if a firm changes its public accountant partner in the financial year, and 0 if the public accountant partner is the same as previous year.

Control Variables

Based on previous research conducted by Amar (2014), Camerana (2014), Corbella (2015), Kim (2015), Choi (2017), Jaggi (2014), the control variables used in this study are the size of a public accounting firm which is measured by KAP Big4 or Non Big4, company size (SIZE) which is measured by Ln of total company assets, leverage ratio (LEV) which is calculated by dividing total debt with total assets. The ratio of return on assets (ROA) is calculated by dividing total net income with total assets, the ratio of return on equity (ROE) is calculated by dividing total net income with total equity, the changes in total sales from book at year end to previous year (GROWTH), total cash flow from operations (CFO), firms which suffered losses (LOSS), size of KAP (BIG4) and total property, plant, and equipment (PPE).

Analysis Technique and Research Model

The analysis technique used in this study is a ordinary least square (OLS) regression analysis (OLS). The purpose is to determine the trend of relationship between two or more independent variables on dependent variable in which each independent variable has positive or negative

relationship with dependent variable. This model has the ability to explicitly and simultaneously control several factors of the relationship with dependent variable (Wooldridge, 2015).

To test the relationship between independent and dependent variables, we use Ordinary Least Square regression which is as follow:

$$AQ_{it} = \beta_0 + \beta_1 FEKA_{it} + \beta_2 FEAKA_{it} + \beta_3 KSA_{it} + \beta_4 RKAP_{it} + \beta_5 RAP_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \beta_8 ROA_{it} + \beta_9 ROE_{it} + \beta_{10} GROWTH_{it} + \beta_{11} CFO_{it} + \beta_{12} LOSS_{it} + \beta_{13} BIG4_{it} + \beta_{14} PPE_{it} + e$$

Notes:

β_0 : Constant

$\beta_1 - \beta_{14}$: Regression Coefficient

AQ : Audit Quality of firm i in period t

FEKA : Financial expertise of the chairman of audit committee of firm i in period t

FEAKA : Financial expertise of the members of audit committee of firm i in period t

SIA : Specialist expertise of auditor of of firm i in period t

RKAP : Rotation of public accountant firm of firm i in period t

RAP : Rotation of public accountant partner of firm i in period t

SIZE : Size of firm i in period t

LEV : Leverage ratio of firm i in period t

ROA : Return on asset ratio of firm i in period t

ROE : Return on equity ratio of firm i in period t

CFO : Cash flow from operation of firm i in period t

GROWTH : Total sales of firm i in period t

LOSS : Dummy variable of net income of firm i in period t

BIG4 : Size of public accountant of firm i in period t

PPE : Total *prperty, plant,* and *equipment* of firm i in period t

Results and Discussion
Overview of Subjects and Research Objects

The subjects used in this study are manufacturing firms listed on Indonesia Stock Exchange during the years 2014-2016. In this study, there are 255 firms which meet the criteria of purposive sampling. The object used in this study is earnings management conducted by management which is measured by the estimate of discretionary accruals, audit committees, and auditors of manufacturing firms. Descriptive Statistic are presented in Table 2 below

Table 2: Results of Descriptive Statistics Analysis

	Mean	Median	StandarDeviation	Minimum	Maximum
AQ	-0.059	-0.042	0.058	-0.281	-0.000
FEKA	0.510	1.000	0.501	0.000	1.000
FEAKA	1.678	2.000	0.546	0.000	3.000
KSA	0.188	0.000	0.392	0.000	1.000
RKAP	0.153	0.000	0.361	0.000	1.000
RAP	0.529	1.000	0.500	0.000	1.000
SIZE	21.397	21.167	1.614	18.424	26.187
LEV	0.499	0.461	0.380	0.071	2.661
ROA	0.057	0.041	0.095	-0.208	0.382
ROE	0.107	0.086	0.240	-0.569	1.358
GROWTH	0.059	0.057	0.196	-0.500	0.810
CFO	8.709e+08	87280998.000	2.402e+09	-1.084e+09	1.496e+10
LOSS	0.192	0.000	0.395	0.000	1.000
BIG4	0.369	0.000	0.483	0.000	1.000
PPE	3.195e+09	5.579e+08	7.736e+09	8253324.000	5.325e+10

The statistical description in this study includes the maximum value, minimum value, mean value, median value, and standard deviation of each variable, which are audit quality (AQ), the financial expertise of audit committee consisting of the chairman of audit committee (FEKA) and the members of audit committee (FEAKA), the specialist expertise of auditor (SIA), the rotation of public accounting firm (RKAP), the rotation of public accountant (RAP), firm size (SIZE), leverage ratio (LEV), ratio of return on assets (ROA), ratio of return on equity (ROE), firm's growth (GROWTH), total sales (sales), cash flow from operations (CFO), loss, size of public accounting firm (BIG4), as well as total property, plant, and equipment (PPE). Before processing descriptive statistics, winsorize was performed on all variables except dummy variables.

Audit quality is proxied by earnings management which is measured by the value of discretionary accruals. Based on Table 1 above, the audit quality (AQ) has average value of -0,059, mean value of -0,042, and standard deviation of 0.058. The minimum value of audit quality of -0,281 is generated from Dwi Aneka Jaya Kemasindo Tbk (DAJK) in 2014 and the maximum value of audit quality of -0,000 is generated from Martina Berto Tbk (MBTO) in 2014.

The financial expertise of audit committee is measured by a dummy variable of the chairman of audit committee (FEKA) and the number of members of audit committee (FEAKA). Based on Table 1 above, the minimum value of audit committee chairman who has financial expertise

in a firm is 0 while the maximum value is 1, with average value of 0.510, middle value of 1, and standard deviation of 0.501. The minimum value of audit committee's members who have financial expertise is 0 while the maximum value is 3, with average value of 1.678, middle value of 2, and standard deviation of 0.546.

The specialist expertise of auditor (KSA), the rotation of public accounting firm (RKAP), and the rotation of public accountant (RAP) are dummy variables with a minimum value of 0 and a maximum value of 1. Based on Table 1 above, the auditor's specialist expertise has average value of 0.188, middle value of 0, and standard deviation of 0.392. The rotation of public accounting firm has average value of 0.153, middle value of 0, and standard deviation of 0.361. Lastly, the rotation of public accountant has average value of 0.529, mean value of 1, and standard deviation of 0.5.

Pearson Correlation

Pearson Corrrelation was conducted to test the strength and trend of relationship between two variables (Acock, 2008: 180). Based on the Pearson correlation table below, the financial expertise of audit committee's chairman (FEKA), which coefficient is -0.017, has insignificant negative relationship with audit quality, which indicates that the financial expertise of chairman of audit committee has no effect on audit quality. Meanwhile, the financial expertise of audit committee's members (FEAKA), which coefficient is 0.029, has insignificant positive relationship with audit quality, which indicates that the magnitude of audit committee with financial expertise has no effect on audit quality.

The correlation between audit quality and rotation of public accountant (RAP), which coefficient is -0.079, is insignificant negative which indicate that the rotation of public accounting firm and the rotation of public accountant do not affect audit quality. The correlation between audit quality and specialist expertise of auditor (SIA), which coefficient is 0.117, is significant positive at significance level of 10%. These results indicate that auditors who have specialist expertise have better audit quality. Meanwhile, the rotation of public accounting firm (RKAP), which coefficient is -0.105, has significant negative relationship with audit quality at significance level of 10%.

Audit quality variables also have a significant correlation with some control variables, namely leverage (LEV), sales growth (GROWTH), the amount of operating cash flow (CFO), the firm which have loss (LOSS), as well as the number of property, plants, and equipment (PPE) owned by firm. Leverage with a coefficient of -0.134 has significant negative relationship with audit quality at significance level of 5%. GROWTH with a coefficient of -0.121 has significant negative relationship with audit quality at significance level of 10%.

CFO (operating cash flow) with a coefficient of 0.120 and PPE with a coefficient of 0.119 have significant positive effect on audit quality at significance level of 10%. Meanwhile, LOSS with a coefficient of -0.182 has significant negative effect on audit quality at a significance level of 1%. This indicates that firms which suffered losses tend to avoid earnings management. Lastly, the SIZE variable (firm size), ROA (return on assets) with a coefficient of 0.078, ROE (return on equity) with a coefficient of 0.027, and BIG4 (firm size) with a coefficient of 0.035 do not have significant relationship with audit quality.

Table 3: Pearson Correlation

	AQ	FEKA	FEAKA	SIA	RKAP	RAP	SIZE	LEV	ROA	ROE	GROWTH	CFO	LOSS	BIG4	PPE
AQ	1.000														
FEKA	-0.017	1.000													
	(0.782)														
FEAKA	0.029	0.141**	1.000												
	(0.646)	(0.024)													
KSA	0.117*	0.011	0.008	1.000											
	(0.061)	(0.866)	(0.899)												
RKAP	-0.105*	0.024	-0.009	-0.205***	1.000										
	(0.093)	(0.699)	(0.884)	(0.001)											
RAP	-0.079	0.018	-0.037	0.112*	0.401***	1.000									
	(0.209)	(0.769)	(0.553)	(0.073)	(0.000)										
SIZE	0.083	-0.117*	-0.057	0.300***	-0.105*	0.093	1.000								
	(0.189)	(0.063)	(0.368)	(0.000)	(0.096)	(0.139)									
LEV	-0.134**	-0.070	-0.012	-0.108*	0.157**	0.012	-0.124**	1.000							
	(0.032)	(0.267)	(0.848)	(0.086)	(0.012)	(0.852)	(0.049)								
ROA	0.078	-0.138**	-0.172***	0.137**	-0.110*	-0.023	0.223***	-0.233***	1.000						
	(0.213)	(0.028)	(0.006)	(0.028)	(0.079)	(0.712)	(0.000)	(0.000)							
ROE	0.027	-0.052	-0.118*	0.050	-0.060	-0.023	0.240***	-0.042	0.732***	1.000					
	(0.665)	(0.409)	(0.059)	(0.431)	(0.336)	(0.714)	(0.000)	(0.507)	(0.000)						
GROWTH	-0.121*	-0.027	-0.034	0.029	0.031	-0.004	0.042	0.158**	0.030	0.072	1.000				
	(0.053)	(0.673)	(0.588)	(0.643)	(0.620)	(0.949)	(0.508)	(0.011)	(0.634)	(0.251)					
CFO	0.120*	0.068	0.097	0.120*	-0.090	0.047	0.649***	-0.075	0.368***	0.294***	-0.022	1.000			
	(0.055)	(0.280)	(0.122)	(0.056)	(0.150)	(0.450)	(0.000)	(0.235)	(0.000)	(0.000)	(0.732)				
LOSS	-0.182***	0.020	0.014	-0.133**	0.180***	0.021	-0.101	0.313***	-0.586***	-0.388***	-0.051	-0.169***	1.000		
	(0.004)	(0.747)	(0.826)	(0.034)	(0.004)	(0.737)	(0.109)	(0.000)	(0.000)	(0.000)	(0.418)	(0.007)			

BIG4	0.035	-0.031	-0.012	0.630***	-0.234***	0.069	0.572***	-0.143**	0.390***	0.376***	-0.000	0.406***	-0.166***	1.000	
	(0.576)	(0.619)	(0.855)	(0.000)	(0.000)	(0.272)	(0.000)	(0.023)	(0.000)	(0.000)	(0.996)	(0.000)	(0.008)		
PPE	0.119*	0.068	0.187***	0.171***	-0.099	0.064	0.711***	-0.040	0.116*	0.107*	-0.033	0.829***	-0.093	0.417***	1.000
	(0.057)	(0.282)	(0.003)	(0.006)	(0.116)	(0.311)	(0.000)	(0.526)	(0.064)	(0.089)	(0.603)	(0.000)	(0.137)	(0.000)	

The Financial Expertise of Chairman of Audit Committee (FEKA)

The chairman of audit committee in this t test is categorized into 2 groups, which are the chairman of audit committee (FEKA) who has financial expertise and the chairman of audit committee who has non-financial expertise. Based on Table 4 below, the chairman of audit committee who has financial expertise are found in 130 firms.

Table 4: T test (The Financial Expertise of Chairman of Audit Committee)

Variables	Have financial expertise	Have non-financial expertise	Coef	t-value
	N = 130	N = 125		
AQ	-0.060	-0.058	-0.002	-0.277
FEAKA	1.754	1.600	0.154**	2.269
KSA	0.192	0.184	0.008	0.169
RKAP	0.162	0.144	0.018	0.388
RAP	0.538	0.520	0.018	0.294
SIZE	21.213	21.588	-0.376*	-1.866
LEV	0.473	0.526	-0.053	-1.113
ROA	0.044	0.070	-0.026**	-2.209
ROE	0.095	0.120	-0.025	-0.827
GROWTH	0.054	0.064	-0.010	-0.422
CFO	1.030e+09	7.049e+08	3.255e+08	1.082
LOSS	0.200	0.184	0.016	0.323
BIG4	0.354	0.384	-0.030	-0.497
PPE	3.707e+09	2.663e+09	1.044e+09	1.078

Significance level at * 10%, ** 5%, *** 1%

The average audit quality (AQ) in firms which audit committee's chairman has financial expertise is -0.06 while the average audit quality (AQ) in firms which audit committee's chairman has non-financial expertise is -0.58 with a coefficient of -0.002 and is insignificant. This indicates that the audit committee's financial expertise does not have significant difference on audit quality. The average financial expertise of audit committee members is higher for firms in which the audit committee's chairman has financial expertise. These results are indicated by the average financial expertise of 1,754 while non-financial expertise is 1,600 and a coefficient of 0,154 at significance level of 5 %. There is no significant difference of effect of KSA, RKAP, RAP, leverage, ROE, growth, CFO, Loss, Big4, and PPE on audit quality between firms in which audit committee's chairman has financial expertise and firms in which audit committee's chairman does not have financial expertise.

The average firm's size (SIZE) for firms which audit committee's chairman have financial expertise is 21,213 and those with non-financial expertise is 21,588 with a coefficient of -0.376 at significance level of 10%. Furthermore, there is a significant difference on the average return on assets (ROA), which is 0.044 for firms which audit committee has financial expertise and 0.07 for those with non-financial expertise with coefficient of -0.026 at significance level of 5%.

The Specialist Expertise of Auditor (KSA)

Table r: T Test (Variables of the Specialist Expertise of Auditor)

Variables	Specialist Auditors	Non-Specialist Auditors	Coef	t-value
	N = 48	N = 207		
AQ	-0.045	-0.062	0.017**	1.879
FEKA	0.521	0.507	0.014	0.169
FEAKA	1.688	1.676	0.021	0.276
RKAP	0.000	0.188	-0.188***	-3.325
RAP	0.646	0.502	0.143*	1.798
SIZE	22.401	21.164	1.237***	5.006
LEV	0.414	0.519	-0.105*	-1.724
ROA	0.084	0.050	0.033**	2.205
ROE	0.132	0.102	0.03	0.788
GROWTH	0.071	0.056	0.015	0.464
CFO	1.468e+09	7.324e+08	7.358e+08*	1.922
LOSS	0.083	0.217	-0.134**	-2.135
BIG4	1.000	0.222	0.778***	12.911
PPE	5.936e+09	2.560e+09	3.376e+09***	2.759

Significance level at * 10%, ** 5%, *** 1%

Based on Table 5 above, total sample audited by specialist auditors was 48 firms and those that are not audited by specialists, 207 companies. There is a significant difference of average audit quality (AQ) between firms audited by specialist auditors, which is -0.045, and firms audited by non-specialist auditors, which is -0.062 with a coefficient of 0.017 at significance level of 5% and is positively related. This indicates that auditors with industry specialisation are associated with better audit quality. There is insignificant difference of audit committee's financial expertise (FEKA and FEAKA) between firms audited by specialist and firms audited by non-specialist auditors.

Rotation of KAP (RKAP), firm's size (SIZE), KAP size (BIG4), and PPE have significant difference between firms audited by specialist and firms audited by non-specialist auditors at significance level of 1%. Return on assets (ROA) and firm's losses (LOSS) also have

significant difference between firms audited by specialist auditors and firms audited by non-specialists at significance level of 5%. Rotation of public accountants (RAP), leverage (LEV), and CFO have significant difference between firms audited by specialist auditors and firms audited by non-specialists at significance level of 10%. Meanwhile, return on equity (ROE) and sales growth (GROWTH) have insignificant difference.

Rotation of Public Accounting Firm (RKAP)

Table 6: T Test (Variables of Rotation of Public Accounting Firm)

Variables	Have KAP Rotation	Do not have KAP Rotation	Coef	t-value
	N = 39	N = 216		
AQ	-0.073	-0.056	-0.017*	-1.254
FEKA	0.538	0.505	0.034	0.388
FEAKA	1.667	1.681	-0.014	-0.146
KSA	0.000	0.222	-0.222***	-3.325
RAP	1.000	0.444	0.556***	6.955
SIZE	21.000	21.468	-0.468*	-1.672
LEV	0.639	0.474	0.166**	2.527
ROA	0.032	0.061	-0.029*	-1.765
ROE	0.073	0.114	-0.04	-0.963
GROWTH	0.073	0.056	1.70E-02	0.497
CFO	3.612e+08	9.629e+08	-6.02E+08	-1.443
LOSS	0.359	0.162	0.197***	2.909
BIG4	0.103	0.417	-0.314***	-3.834
PPE	1.401e+09	3.519e+09	-2.12E+09	-1.579

Significance level at * 10%, ** 5%, *** 1%

Based on Table 6 above, the total of sample that have rotation of public accounting firm is 39 firms while those that do not have rotation of public accounting firm is 216 firms. The average audit quality (AQ) in firms that have rotation of public accounting firms is -0.073 and those who do not have rotation is -0.056 with a coefficient of -0.017 and significant at significance level of 10%. There is a significant difference of expertise of specialist auditors (KSA), public accountant rotation (RAP), loss, and KAP size (BIG4) at significance level of 1%.

Average leverage (LEV) has a significant difference at the 5% level with a coefficient of 0.166, which is 0.639 for firms that have rotation of public accounting firm and 0.474 firms that do not have rotation of public accounting firm. The average return on assets (ROA) has a significant difference at the 10% level with an average value of 0.032 in firms that have rotation and 0.061 in firms that have rotation.

The Rotation of Public Accountant Partners (RAP)

Table 7: T Test (Variables of Rotation of Public Accountant)

Variable	Have KAP Rotation	Do Not Have KAP Rotation	Coef	t-value
	N = 135	N = 120		
AQ	-0.063	-0.054	-0.009	-1.260
FEKA	0.519	0.500	0.019	0.294
FEAKA	1.659	1.700	-0.041	-0.597
KSA	0.230	0.142	0.088*	1.798
RKAP	0.289	0.000	0.289***	6.955
SIZE	21.538	21.238	0.299	1.482
LEV	0.503	0.494	0.009	0.186
ROA	0.055	0.059	-0.004	-0.369
ROE	0.102	0.113	-0.011	-0.366
GROWTH	5.80E-02	6.00E-02	-2.00E-03	-0.063
CFO	9.78E+08	7.50E+08	2.28E+08	0.756
LOSS	0.200	0.183	0.017	0.336
BIG4	4.00E-01	3.33E-01	6.70E-02	1.100
PPE	3.66E+09	2.67E+09	9.86E+08	1.016

Significance level at * 10%, ** 5%, *** 1%

Based on Table 7 above, total sample that have rotation of public accountants is 135 firms, and those that do not have rotation of public accountants, 120 firms. The average audit quality (AQ) in firms that rotate public accountants is -0,063 and those who do not rotate is -0,054 with a coefficient of -0.009 and insignificant. This indicates that there is no significant difference of effect of rotation of public accountants on audit quality. However there is a significant difference in the case of the specialist expertise of auditors at a significance level of 10%. The average KAP rotation (RKAP) also has a significant difference at significance level of 1%. This is due to firms that have KAP rotation also having rotation of public accountant. Audit committee's financial expertise, firm's size (SIZE), leverage (LEV), ROA, ROE, GROWTH, CFO, LOSS, BIG4, and PPE do not have significant average differences.

Ordinary Least Square Regression (OLS)

Based on Table 8 below, the coefficient of financial expertise of chairman of audit committee (FEKA) in table (1) and (2) is -0.006, with t value of -0.79 in table (1) and t value of -0.70 in table (2) and insignificant. The coefficient of financial expertise of audit committee's members (FEAKA) in table (1) and (2) is -0.001 with t value of -0.08 and is insignificant. These results

indicate that audit committee that has financial expertise does not affect audit quality (AQ).

Table 8: The Results of Regression Analysis of Ordinary Least Square and Robust Regression

Variables	Trend Prediction	Audit Quality (AQ)	
		AQ	AQ
FEKA	+	-0.006	-0.006
		(-0.79)	(-0.70)
FEAKA	+	-0.001	-0.001
		(-0.08)	(-0.08)
KSA	+	0.029**	0.029**
		(2.38)	(2.41)
RKAP	+	-0.006	-0.006
		(-0.55)	(-0.51)
RAP	+	-0.011	-0.011
		(-1.36)	(-1.37)
SIZE	+	-0.000	-0.000
		(-0.02)	(-0.02)
LEV	-	-0.011	-0.011
		(-1.02)	(-0.76)
ROA	+	-0.043	-0.043
		(-0.59)	(-0.55)
ROE	+	0.012	0.012
		(0.51)	(0.61)
GROWTH	+	-0.037**	-0.037
		(-2.00)	(-1.52)
CFO	-	0.000	0.000
		(0.62)	(0.68)
LOSS	-	-0.022*	-0.022
		(-1.81)	(-1.65)
BIG4	+	-0.023*	-0.023*
		(-1.83)	(-1.82)
PPE	+	0.000	0.000
		(0.62)	(0.89)
Year		Included	Included
r2		0.121	0.121
N		255	255

Significance level at * 10%, ** 5%, *** 1%

The coefficient of auditor's specialist expertise (KSA) in table (1) and (2) is 0.029, with t value of 2.38 for table (1) and 2.41 for table (2) and significant at significance level of 5%. These results indicate that specialized auditors are more capable in delivering better audit quality (AQ).

The coefficient of public accounting firm's rotation (RKAP) in table (1) and (2) is 0.006, which indicates a direct relationship, with t value of -0.55 in table (1) and -0.51 in table (2) and insignificant. These results indicate that the rotation of public accounting firm does not affect audit quality.

The coefficient of public accountant's rotation (RAP) in table (1) and (2) is -0.011, with t value of -1.36 in table (1) and -1.37 in table (2) and insignificant. These results indicate that the rotation of public accountant has no effect on audit quality.

The Effect of Financial Expertise of Audit Committee on Audit Quality

Based on Table 7, the coefficient of financial expertise of chairman of audit committee (FEKA) in table (1) and (2) is -0.006, with t value of -0.79 in table (1) and -0.70 in table (2) and insignificant. The results indicate that firm which chairman and members of audit committee have financial expertise, have no effect on audit quality, and thus, the hypothesis is rejected. This result are consistent with Amar's (2014) study which posits that there is no significant relationship between audit committee's financial expertise and earnings management practice proxied by discretionary accruals. This suggests that earnings management can still be executed even if the firm's audit committee has financial expertise. Audit committee that has financial expertise is not fully independent from the firm and thus, they cannot perform their roles effectively (Amar, 2014).

The Effect of Specialist Expertise of Auditor on Audit Quality

Based on Table 7, the coefficient of specialist expertise of auditor (KSA) in table (1) and (2) is 0.029, with t value of 2.38 in table (1) and 2.41 in table (2) and significant at significance level of 5%. The results show that firm audited by specialist auditors has significant positive effect on audit quality in which the hypothesis is accepted. These results are consistent with the research conducted by Jaggi (2014) which posits that specialist expertise of auditor is crucial and has impact on audit quality which is proxied by discretionary accruals. These results underline the role of industry specialization in increasing audit effectiveness in reporting issues. Specialist auditor tends to detect better earnings management and as such, the delivered quality of audit is better than non-industry specialist auditor. The specialist expertise of auditor contributes positive effect in which the specialization of KAP improves the audit quality (Ishak, 2014; Venkat and Rajendra, 2017).

The Effect of Rotation of Public Accountant Firm on Audit Quality

Based on Table 7, the coefficient of rotation of public accounting firm (RKAP) in table (1) and (2) is 0.006, which indicates a direct relationship, with t value of -0.55 in table (1) and -0.51 in table (2) and insignificant. The results of study indicate that firm which rotates its public accounting firm cause no effect on audit quality and thus, the hypothesis is rejected. These results are consistent with Corbella's (2015) study which states that there is no significant relationship between audit firm rotation and audit quality in the full sample and in the sub-sample of firms audited by Big 4 public accounting firm. In that study, audit quality is proxied by abnormally working capital accruals and audit fees. According to Nurhayati (2015) and Fitriany (2015), rotation of public accounting firm does not affect audit quality. This is perhaps caused by a public accounting firm's first time in auditing its client and as such there is limited understanding of the characteristics of its client's industry.

The Effect of Rotation of Public Accountant on Audit Quality

Based on Table 7, the coefficient of public accountant's rotation (RAP) in table (1) and (2) is -0.011, with t value of -1.36 in table (1) and -1.37 in table (2) and insignificant. The results show that when a firm rotates its public accountants does not affect the audit quality and thus, the hypothesis is rejected. According to Arthur (2017), rotation of audit partner can improve audit quality when the audit firm is an industry specialist. Meanwhile, rotation of audit partner has no effect if the firm rotates with non-industry specialists audit firms. This might be due to a new auditor's first time in recognizing client's business industry and thus, they a lack of understanding of client condition. Fitriany (2015) also states that there is no effect of rotation of public accountants on audit quality in general.

Conclusion

Based on the results of this research about the influence of financial expertise of audit committee, the expertise of the auditor specialist, the rotation of public accounting firm, and the rotation of public accountant, the following are the conclusions of research results; the audit committee's financial expertise has no significant effect on audit quality; the auditor's specialist expertise has a significant positive effect on audit quality; the rotation of public accounting firm does not affect significantly on audit quality; and rotation of public accountant's partners does not affect significantly on audit quality.

Specialist auditors deliver better audit quality with lower level of earnings management. Therefore, firms with high business complexity should choose specialist auditors to avoid earnings management. The government should reconsider the regulations about audit rotation.

There is a need to evaluate the new policy which only regulates the period of engagement of a public accountant, and in which there is no regulation about a public accounting firm's engagement period. Furthermore, new policy is needed to improve audit quality. The auditor should maintain their independence to improve audit quality as well as maintain their reputation in the eyes of client.

The limitation of this study is the coefficient of determination, which is only 12.1%, and as such, there are many other variables, besides the independent and control variables used in this study, that are able to explain audit quality as high as 87.9%. Therefore, future research can use other variables that affect audit quality. The focus of this research is only on manufacturing firms listed on Indonesia Stock Exchange in the years 2014-2016 and it is suggested that further research expand the scope of the research into other sectors.

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