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**Article**

## Risk management committee, independent commissioner, and audit fee: An update

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## FINANCIAL ECONOMICS | RESEARCH ARTICLE

# Risk management committee, independent commissioner, and audit fee: An update

Nadia Klarita Rahayu<sup>1</sup>, Iman Harymawan<sup>1\*</sup>, Wulandari Fitri Ekasari<sup>1</sup> and John Nowland<sup>2</sup>

**Abstract:** We investigate whether the risk management committee and independent commissioner contribute to the audit fee. We use 720 observations from Indonesian listed companies for 2015–2018. We use ordinary least square analysis to address our hypotheses. The result shows that the proportion of independent commissioners weakens the relationship between RMC and audit fees. Our study proved that the existence of a risk management committee would lead to a higher demand for audit coverage. As a result, the audit fee increased. RMC may demand high-quality external assurance, but it may be ignored because the independent commissioner has more authority than RMC. In addition, we also used coarsened exact matching with a consistent result as the OLS. These findings provide evidence for policymakers on the relationship between audit fees and risk management committees.

**Subjects:** Economics; Finance; Business; Management and Accounting

**Keywords:** Risk management committee; independent commissioner; audit fee  
**JEL classification:** G32; G34

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### PUBLIC INTEREST STATEMENT

This paper investigate whether the risk management committee and independent commissioner contribute to the audit fee. We use ordinary least square analysis to address our hypotheses. The result shows that the proportion of independent commissioners weakens the relationship between RMC and audit fees. Our study proved that the existence of a risk management committee would lead to a higher demand for audit coverage. As a result, the audit fee increased. RMC may demand high-quality external assurance, but it may be ignored because the independent commissioner has more authority than RMC. In addition, we also used coarsened exact matching with a consistent result as the OLS. These findings provide evidence for policymakers on the relationship between audit fees and risk management committees.

## 1. Introduction

This study investigates whether the risk management committee and independent commissioner contribute to the audit fee. The auditing literature has long recognized the importance of audit fee research as it is important to understand the pricing of audit services for suppliers and users of audit services as well as to market regulators (Che-Ahmad & Houghton, 1996). The current interest in audit fees in Indonesia also stems from the policy issued by the Indonesian Institute of Certified Public Accountant in the determination of financial audit services. Moreover, there is a large body of literature that has been examined factors that affect the audit fee such as managerial ability (Krishnan & Wang, 2015), audit firm rotation (Kwon et al., 2014), audit partner rotation (Stewart et al., 2016), corporate risk disclosure (Yang et al., 2018) and board governance structures (Ghafran & O'Sullivan, 2017; Hay et al., 2006; Larasati et al., 2019) showed the mixed result.

There are explanations about the link between corporate governance and auditing. This relationship can be explained through audit pricing theory. The development of the theory of audit pricing is provided by Simunic (1980), who recognizes that external audit costs are simply market-clearing quantities ( $q$ ) and price ( $p$ ) pairs, where quantity is a representative of the hours worked and the price is representative of the average hourly billing rate. Pong and Whittington (1994) proposed a supply and demand model in which supply is governed by the auditor's cost function, which is largely based on the quantity of audit work performed. As minimum auditing standards are set by legal and professional standards, Pong and Whittington's demand for external audit services is inelastic and determined by the volume of work required, which is largely a function of the size of the auditee.

The relationship between risk management committee and audit fee then explained through a supply-sided perspective arguing that auditors' assessments of inherent and control risks may be related to audit fee based on the auditors' production costs (Badertscher et al., 2014). Conversely, the previous study shows that the existence of a stand-alone risk management committee has a positive relationship with audit fees (Larasati et al., 2019). Furthermore, the existence of an independent party in a company will also relate to the level of audit fees (Stewart et al., 2016). The existence of an independent board member may lead to a reduction in audit fees because the existence of an independent board should improve the control environment (Knechel & Willekens, 2006). On the other hand, Independent Audit committees are positively associated with audit fees (Abbot et al., 2003). It is because the demand for increased audit coverage will lead to higher audit fees. There is evidence that shows that committee independence is not associated with audit fees. However, there is no existing literature about how independent commissioners (IC) affect the relationship between RMC and audit fees. We want to collect evidence on how independent commissioner moderating the relationship between RMC and audit fees.

External auditors view strict audit committees as a source of internal control strength, but strict audit committees often require strict audits, which they manage with external auditors (Hines et al., 2015). RMC is responsible for influencing the company's risk profile, but they not responsible for choosing external auditors. The impact that the presence of RMC might have on the risk assessment process and explain how the characteristics of RMC affect the relationship between RMC presence and audit costs so that it can determine whether the auditor adjusts perceived audit risk based on stronger governance principles. Otherwise, the commissioner has the authority to determine the public accounting firm that will be used by the company. The presence of Independent Commissioner is expected to be independent and to be able to carry out their duties independently include in determining the public accounting firm process, solely in the interests of the company, apart from the influence of various parties who have interests that can conflict with the interests of other parties.

We conduct our tests using data on the listed firm in the Indonesian Stock Exchange from 2015 to 2018. This study consists of 720 observations. We use ordinary least square analysis to answer the research question. The result shows that RMC will lead to an increase in the audit fee. On the other hand, a more independent commissioner will decrease the audit fee. Moreover, the existence of an

independent commissioner weakens the relationship between RMC and audit fees. It occurs because of commissioner position is higher than the RMC position. Independent commissioner has stronger power than RMC, especially in terms of determining public accounting firm. We also used a coarsened exact matching analysis. This analysis continues to find that the RMC is positively related with audit fees, and the relation is weakened once the company has a higher portion of an independent commissioner. Additional analysis shows that the number of employees, firms size, and leverage moderating the relationship between RMC and audit fees. The result shows that the number of employees weakens the relationship between RMC and audit fees. Firm size also weakens the relationship between RMC and audit fees but still significant. Leverage strengthen the relationship between RMC and audit fee.

These findings provide evidence, especially for the policymaker, that implementation of RMC may cause an increase in audit fees on public companies. On the other hand, the relationship between the RMC and audit fees is weakened by the existence of an independent commissioner. This result can also be used as additional information for practitioners that the RMC will request high audit quality, which is also accompanied by an increase in audit fees. However, by having an independent commissioner in the company, the demand for high audit quality by the RMC will be ignored by the independent commissioner's power.

This paper is structured as follows: Section 2 will give an explanation about the literature review; Section 3 will explain the sample and variables used in the study; Section 4 will explain the result and discussion, and the last section will provide conclusions of the study.

## 2. Literature review and hypotheses

### 2.1. Risk management committee, independent commissioner, and audit fees in Indonesia

The establishment of the RMC in Indonesia has not yet been regulated mandatory. Based on the Financial Services Authority Regulation 18 /POJK.03/2016, the RMC must only be owned by the financial/banking sector. This is because the financial sector tends to be riskier compared to other industries. The formation of the RMC is carried out by a board of commissioners with a purpose to support the company's duties on monitoring risk management (Bank Indonesia Regulation 8/4/PBI/2006). According to the general guidelines on good corporate governance issued by the Indonesian National Corporate Governance Committee, the BoC can form a supporting committee, such as the RMC, to support their work. Following this guide, the Ministry of State-Owned Enterprises issued PER/12/MBU/2012 as a guide for state-owned companies to establish a support structure (such as the RMC) for the Board of Commissioners, but the formation of the RMC is still voluntary.

Based on Financial Services Authority Regulation 57/POJK.04/2017, the existence of an independent commissioner is a mandatory instruction for a public listed company in Indonesia. Furthermore, the Board of Commissioners must consist of more than 2 (two) people, and a percentage of the number of Independent Commissioners required at least 30% (thirty percent) of the amount all members of the Board of Commissioners. Independent commissioner shall be appointed based on a General Meeting of Shareholders' decisions from parties who not affiliated with major shareholders, members of the Board of Directors and/or other members of the Board of Commissioners. Independent commissioners must carry out the audit function of the Board of Commissioners. The audit function referred to reviewing financial information to be released Securities Companies to the public and/or parties authority, independence, scope of the assignment, and cost as a basis for the appointment of a Public Accountant, audit plan and implementation by the Accountant Public, and implementation of risk management functions and functions compliance and internal audits of Securities Companies.

### 2.2. Risk management committee and audit fees

We expect that there is a relationship between RMCs and audit fees. Previous studies show mixed results about the impact of governance structure on audit fees. The mixed results are caused by several audit demand factor (Knechel & Willekens, 2006; Chwee Ming Tee et al., 2017) such as

audit committee characteristics (Goodwin-Stewart & Kent, 2006), independent audit committee (Larasati et al., 2019) and also committees overlap between audit and compensation committee (Khondkar et al., 2015).

Better governance may reduce the cost of auditing (Griffin et al., 2008). There are several benefits for a company that has an RMC. Risk Management Committee's role is primarily to monitor a firm's comprehensive risk management framework (Ames et al., 2018). A company that has a risk management committee is expected to have more effective internal control. Delegating a separate risk management function besides committee likely mitigates both the time and attention constraints faced by those charged with risk management responsibilities (Iselin, 2019). RMC will independently finish its function with the audit committees so they could work more effectively to perform the responsibility of overseeing risk management (Buckby et al., 2015). Establishment of an RMC will promote adequate industry health and strength, or at least the effective RMC should assist organizations in achieving their goals and secure the organizational reputation as well as provide improved quality financial reporting (Abdullah & Said, 2019).

Demand-sides assumes that the level of internal control is an important point that will stimulate demand for an increase in external assurance (Knechel & Willekens, 2006). Even so, RMC does not have the authority to choose a public accounting firm, but they can recommend management to request greater services. This action is a result of RMC's responsibility in overseeing company activities.

H1: There is a positive relationship between RMC and audit fee

### **2.3. Independent commissioner and audit fee**

An independent party in the company of Indonesia is implemented to be able to represent the interests of a minority of the company. Two-tier board systems in Indonesia led to the emergence of a supervisory board, including the independent commissioner. Independent commissioners are expected to give supervision since independent commissioner does not have any interest in the company. Since they are formally separated from the board of directors, therefore it might be argued they can monitor more independently. It is supported by the previous study, which found that there is a negative relationship between the composition of the independent commissioner and the possibility of fraud in financial reporting (Cheng & Firth, 2006; Sudarman & Aniqotunnafiah, 2019). The existence of the independent commissioner is expected to give a guarantee to the transparency of financial statements so that shareholders will get quality information. The audit function is supported by board independence. The independent board members seek to decrease their responsibilities toward questionable financial reporting decisions made by management (Hay et al., 2006). Some studies found that that independent corporate boards positively affect the performance of the firm (Rechner & Dalton, 1991; Tian & Lau, 2001). Besides that, independent corporate boards are also known to have a negative effect on firm performance (Donaldson & Davis, 1991).

We expect that there is a relationship between the proportion-independent commissioner and the audit fee. The proportion of Independent commissioners and audit fees may have a positive relationship since they may ask for high-quality audits. This argument leads us to expect audit fees would be higher for firms with a larger portion of an independent commissioner. A study conducted by Kaur and Singh (2018) has been proving that there is a positive and significant association between external audit fees level and board independence.

Independent corporate boards are an important factor that will influence the determination of audit fees because independent corporate boards are one of the bases for the auditor's assessment of risk control (Tsui et al., 2001) Firms with independent corporate boards that provide an effective monitoring system are expected to be associated with lower control risk and audit

fees. It is predicted that the effective monitoring carried out by independent corporate boards will be associated with lower control risks accompanied by a low audit fee.

H2: There is a negative relationship between the independent commissioner and audit fee

#### **2.4. Risk management committee, independent commissioner, and audit fee**

Research in the determinants and consequences of RMCs are continuously increased. Muttakin et al. (2012) found that a company with a large and independent board chairman is more likely to have RMC. Companies that have RMC will have a good oversight board of risk management so as to avoid incidents that can interfere with company activities. RMC will also give more time and effort in integrating and managing company risk (Brown et al., 2009). Based on prior research, we argue that strong risk governance is initiated by the existence of RMC and more independent commissioners. Stronger risk governance will produce lower control risk. It suggests that the bigger number of independent the commissioner exist in a company the more auditor will consider this condition as lower control risk and audit fees. Moreover, the existence of RMC, as we mentioned before, that will demand high-quality external assurance may be ignored because they do not have the authority for choosing external auditor while independent commissioner does.

H3: Independent Commissioner and Risk Management Committee negatively related to Audit Fees

### **3. Research method**

#### **3.1. Sample and source of data**

We use a sample from the population of firms listed Indonesia Stock Exchange for the years 2015–2018. Data on RMC and Independent Commissioner are collected manually from their annual reports. Data on control variables are collected ORBIS database. We applied sample selection criteria to reach our final sample. We use all industry for our sample. We exclude all of the missing variables. After applying these criteria, our final sample includes 720 firm-year observations. We winsorized all of the continuous variables at the 1st and 99th percentiles to mitigate the undesirable influence of outliers.

#### **3.2. Operational definition and variable measurement**

Variable used in this study are the Risk Management Committee (RMC) and the independent commissioner (DIBOD). RMC measured by a dummy variable, coded 1 if companies disclose the existence of stand-alone RMC, and 0 if otherwise (Al-Hadi et al., 2017; Ames et al., 2018; Larasati et al., 2019). DIBOD measured by a dummy variable, coded 1 if the proportion of independent commissioner divided by the total commissioner is more than the median, and 0 if otherwise. We use audit fees (AFEE) as the dependent variable. Audit fees are measured by using the natural logarithm of audit fees paid by the company to their external auditor (Hay et al., 2006; Hines et al., 2015; Larasati et al., 2019; Chwee Ming Tee et al., 2017).

We follow previous literature in using control variables (Gotti et al., 2012; Larasati et al., 2019; Singh et al., 2013; Sun et al., 2013; C. M; Tee, 2018). The control variables are the proportion of independent directors (DIBOD); the company's auditor choice (BIG4), political connection (PCON); number of employee (EMP); profitability (ROA); firm size (FSIZE); leverage (LEV); the proportion of receivable and inventory on total asset (RECINV). DIBOD is a dummy variable, coded 1 if the proportion of independent directors divided by total directors is more than the median, and 0 if otherwise. BIG is dummy variable coded 1 if the company is audited by BIG 4 and 0 otherwise. The political connection is dummy variable coded 1 if the company has a political connection and 0 otherwise. The number of employees is the natural logarithm of the total number of employees. ROA is the return on assets

divided by total asset. Firm size is the natural logarithm of total assets. Leverage is the ratio of current liabilities to total assets. All variables used in this article are summarized in [Table 1](#).

### 3.3. Methodology

We use ordinary least square regression with year-industry fixed effect and clustered standard errors to test our hypotheses. We also employ coarsened exact matching to The software used in this research is STATA 14.0. We use two different research models to test our hypotheses. The first research model (1) used to test hypotheses 1 and hypothesis 2, while the second (2) research model is used to test third (2). Based on our arguments on hypothesis 1 and hypothesis 2, we expect the coefficient of RMC to be positive and DIBOC to be negative.

$$\text{LNFEF}_{i,t} = \beta_0 + \beta_1 \text{RMC}_{i,t} + \beta_2 \text{DIBOC}_{i,t} + \beta_3 \text{DIBOD}_{i,t} + \beta_4 \text{PCON}_{i,t} + \beta_5 \text{BIG4}_{i,t} + \beta_6 \text{EMP}_{i,t} + \beta_7 \text{ROA}_{i,t} + \beta_8 \text{FSIZE}_{i,t} + \beta_9 \text{LEV}_{i,t} + \beta_{10} \text{RECINV}_{i,t} + \varepsilon_{i,t} \quad (1)$$

Table 1. Variable definition		
Variable	Definition	Source
Dependent:		
AFFE	Natural logarithm of audit fees	Annual Report
Independent:		
RMC	Dummy variable, coded 1 if companies disclose the existence of stand-alone RMC, and 0 if otherwise	Annual Report
DIBOC	Dummy variable, coded 1 if the proportion of independent commissioner divided by total commissioner is more than the median, and 0 if otherwise.	Annual Report
Controls:		
DIBOD	Dummy variable, coded 1 if the proportion of independent directors divided by total directors is more than the median, and 0 if otherwise.	Annual Report
PCON	Dummy variable, coded 1 if the commissioners and directors of companies who were currently or formerly members of parliament (DPR), ministers, heads of state, or those who had close ties with top politicians and/or parties and 0 if otherwise.	Annual Report
BIG4	Dummy Variable, Coded 1 if a company is audited by BIG4 Auditor (EY, KPMG, PwC, Deloitte) and 0 if otherwise.	Annual Report
EMP	Natural logarithm of the total number of employee	ORBIS
ROA	Earnings after tax divided by total assets	ORBIS
FSIZE	Natural logarithm of the company's total asset	ORBIS
LEV	Total liabilities divided by total assets	ORBIS
RECINV	The proportion of account receivable and inventory on total assets	ORBIS



$$\text{LNFE}_{i,t} = \beta_0 + \beta_1 \text{RMC} * \text{DIBOC}_{i,t} + \beta_2 \text{RMC}_{i,t} + \beta_3 \text{DIBOC}_{i,t} + \beta_4 \text{DIBOD}_{i,t} + \beta_5 \text{PCON}_{i,t} + \beta_6 \text{BIG4}_{i,t} + \beta_7 \text{EMP}_{i,t} + \beta_8 \text{ROA}_{i,t} + \beta_9 \text{FSIZE}_{i,t} + \beta_{10} \text{LEV}_{i,t} + \beta_{11} \text{RECINV}_{i,t} \quad (2)$$

#### 4. Result and discussion

##### 4.1. Descriptive statistics and univariate comparison

Table 2 shows the sample distribution of observation used in this study based on the existence of RMC. Overall, the proportion of firms with a standalone RMC is smaller than the firm without RMC. Wholesale and retail trade have the smallest portion of standalone RMC with only one firm. While the biggest proportion of standalone RMC is in Mining and Construction. This distribution aligns with the previous study that states that firms with high complexity industries are more likely to establish RMC as a way to show their commitment to good corporate governance (Subramaniam et al., 2009).

Table 3 presents descriptive statistics. The mean of RMC is 0.169. It means that 16.9% of firms are having RMC in their company. The average DIBOC is 0.882; it means 88.2% of firms are having a total proportion of independent commissioners divided by total commissioner more than the median while average or DIBOD is 0.460. The firm has a total asset of 11,610 billion rupiahs and a leverage of 47.1% on average. The proportion of inventory and receivable vary from 0.5% to 84.1%. Company profitability, as measured by ROA, ranges from -17.47 to 53.15. Firms audited by BIG 4 audit firms are 45.5%. The average number of employee vary from 8 to 85,147 employees.

We also employed a univariate analysis. From Table 4 we can see the difference between firms with RMC and without RMC. Firms with RMC are more likely to pay higher audit fees, appoint BIG4 auditors, have a larger company based on firm size and number of employees, and also have higher leverage. Firms with RMC is also more likely to have a political connection. On the other side, the result shows that a higher portion of independent directors is more likely found in a firm without stand-alone RMC. However, there is no different portion of independent commissioner and ROA between firms with or without RMC. Table 5 presents the result of the Pearson Correlation. RMC, DIBOC, LNFE confirmed our prediction direction with a significant result. Unreported variance inflation factors (VIFs) have an average of 4.13.

**Table 2. Sample distribution**

Industries based on SIC code	Firms with RMC	Firms without RMC	Total
Agriculture, Forestry, and Fishing (0)	2	10	12
Mining and Construction (1)	46	86	132
Manufacturing (2)	19	185	204
Manufacturing (3)	17	98	115
Transportation, Communications, and Utilities (4)	27	63	90
Wholesale and Retail Trade (5)	1	55	56
Finance, Insurance and Real Estate (6)	4	55	59
Services (7)	5	38	43
Services (8)	1	8	9
Total	122	598	720

This table displays the sample distribution of companies that have RMC and non-RMC of 720 companies listed on the IDX in 2015–2018.

**Table 3. Descriptive statistics**

	<b>Mean</b>	<b>Median</b>	<b>Minimum</b>	<b>Maximum</b>
AUDITFEE	3,373,000,000,000	849,600,000,000	46,750,000,000	858,000,000,000,000
RMC	0.169	0.000	0.000	1.000
DIBOC	0.882	1.000	0.000	1.000
DIBOD	0.460	0.000	0.000	1.000
PCON	0.786	1.000	0.000	1.000
BIG4	0.458	0.000	0.000	1.000
EMP	3,425	1,319	8	85,147
ROA	5.917	4.260	-17.470	53.150
TASSET	11,610,000,000,000	4,064,000,000,000	46,760,000,000	206,200,000,000,000
LEV	0.471	0.461	0.073	0.947
RECINV	0.283	0.240	0.005	0.841

This table shows descriptive statistics for all the variables used in this study. The sample used in this study amounted to 720 companies listed on the IDX in 2015–2018.

**Table 4. T-test**

	Firms with RMC	Firms without RMC	Coef	t-value
LNFEF	21.466	20.411	1.054***	9.708
DIBOC	0.844	0.890	-0.045	-1.415
DIBOD	0.369	0.478	-0.109**	-2.214
PCON	0.885	0.766	0.119***	2.944
BIG4	0.721	0.405	0.317***	6.577
EMP	7.853	6.919	0.934***	6.277
ROA	5.293	6.045	-0.752	-0.673
FSIZE	23.319	21.910	1.410***	10.292
LEV	0.526	0.459	0.067***	3.213
RECINV	0.183	0.303	-0.120***	-6.008

Table 4 shows the characteristics of companies that have RMC and non-RMC from 720 companies listed on the IDX in 2015–2018. The t-test results are displayed with \*t > 1,645, \*\*t > 1,960, \*\*\*t > 2,326, significance at 10%, 5% and 1%.

**Table 5. Pearson correlation**

**Panel A: From variables LNFEF to BIG4**

	[1]	[2]	[3]	[4]	[5]	[6]
[1] LNFEF	1.000					
[2] RMC	0.341***	1.000				
[3] DIBOC	-0.153***	-0.053	1.000			
[4] DIBOD	-0.146***	-0.082**	0.139***	1.000		
[5] PCON	0.245***	0.109***	-0.107***	0.019	1.000	
[6] BIG4	0.563***	0.238***	-0.095**	-0.026	0.147***	1.000
[7] EMP	0.546***	0.228***	-0.021	-0.205***	0.154***	0.372***
[8] ROA	0.188***	-0.025	0.017	0.013	0.107***	0.258***
[9] FSIZE	0.682***	0.359***	-0.136***	-0.207***	0.262***	0.395***
[10] LEV	0.152***	0.119***	-0.129***	-0.055	0.005	-0.051
[11] RECINV	-0.171***	-0.219***	0.114***	0.001	-0.084**	-0.051

**Panel B: From variables EMP to RECINV**

	[7]	[8]	[9]	[10]	[11]
[7] EMP	1.000				
[8] ROA	0.178***	1.000			
[9] FSIZE	0.640***	0.100***	1.000		
[10] LEV	0.172***	-0.224***	0.242***	1.000	
[11] RECINV	0.032	0.196***	-0.253***	0.044	1.000

p-values in parentheses

\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01

**4.2. Risk management committee, independent commissioner, and audit fee**

Table 6 shows the result of models 1 and 2. Column 1 shows the regression of our first model. The result shows that RMC has a positive and significant correlation with audit fees, while DIBOC has a negative and significant correlation with audit fees. The coefficient on RMC 0.242 (t = 2.93) significant at 1%. It means that the existence of a stand-alone risk management committee is related to a higher audit fee. This result confirms our first hypotheses and the previous result

**Table 6. Risk management committee, independent commissioner and audit fee**

	(1)	(2)
	LNFEF	LNFEF
RMC_DIBOC		-0.209 (-0.97)
RMC	0.242*** (2.93)	0.419** (2.09)
DIBOC	-0.161* (-1.79)	-0.114 (-1.12)
DIBOD	-0.037 (-0.63)	-0.041 (-0.69)
BIG4	0.749*** (11.22)	0.753*** (11.26)
PCON	0.158** (1.97)	0.162** (2.02)
EMP	0.113*** (4.08)	0.113*** (4.07)
ROA	0.007** (2.49)	0.007** (2.38)
FSIZE	0.302*** (9.62)	0.300*** (9.54)
LEV	0.304** (2.06)	0.310** (2.10)
RECINV	-0.320** (-1.99)	-0.326** (-2.03)
_cons	13.136*** (20.95)	13.150*** (20.97)
Industry Dummies	Included	Included
Year Dummies	Included	Included
r2	0.594	0.594
N	720	720

This table shows the results of multiple linear regression between risk management committee, independent commissioner and audit fee of 720 companies listed on the IDX 2015–2018 with \*t > 1,645, \*\*t > 1,960, \*\*\*t > 2,326, significance at 10%, 5% and 1%.

(Larasati et al., 2019). It may be caused by the firm’s internal control, which in this case, is RMC that forces demand external audit (Hay et al., 2006). The positive relationship between RMC and audit fees here confirms audit pricing theory from the demand side. The company’s internal control becomes more effective with the presence of RMC. The effectiveness of the function of the RMC is further reflected in the implementation of responsibility for monitoring risk management (Buckby et al., 2015). This effectiveness is also reflected in RMC’s encouragement to help organizations achieve their goals and secure the organization’s reputation, and provide higher quality financial reporting (Abdullah & Said, 2019). Upon this request, the auditors will improve their work, which is reflected in the higher audit fee.

Moreover, the relationship between independent commissioner and audit fee is negative and significant, with the coefficient on RMC -1.61 (t = -1.79). This result indicates that firms which have proportion-independent commissioner above the median have lower audit fee. The independent board of commissioners will carry out its supervisory function ineffectively, including the

quality of financial reports. This is in line with Beasley's (1996) study, which found that the presence of an independent director on the board will reduce the possibility of fraud in financial statements. These findings suggest that increasing the income of outside directors on the board can effectively increase management actions, including creating fraud in the company's financial statements. Based on this explanation, the representation of independent commissioners can be a signal for auditors regarding the company's effectiveness in convincing auditors and showing a lower audit fee.

Column 2 shows the regression of our second model. The result indicates that DIBOC weakens the relationship between RMC and LNFE. The result direction is align with our second hypothesis but not significant. RMC may demand high-quality external assurance, but it may ignore because RMC does not have authority for choosing external auditor while independent commissioner does. We argue that the influence of the independent commissioner is bigger than the RMC since the position of independent commissioner is higher than the RMC position. All of the control variables show a significant correlation with audit fees except DIBOD.

We also added additional regression to give an explanation whether the number of employees, firms size, and leverage moderating the relationship between RMC and audit fee as additional analysis in Table 7. Column 1 shows that the number of employees weakens the relationship between RMC and audit fee. The coefficient on RMC 0.109 ( $t = 1.88$ ) significant at 10%. Column 2 shows that firm size also weaken the relationship between RMC and audit fee but still significant at 1%. The last column shows that leverage strengthens the relationship between RMC and audit fees. This provides further evidence that the existence of RMC will lead to higher audit fees, especially for firms with higher leverage. Leverage is one of the general risk proxy (Thinggaard & Kiertzner, 2008). Leverage may try to capture the business risk of the auditor (Jubb et al., 1996). The higher general risk will lead to more audit work that is expected to be undertaken to mitigate it and/or the auditor is expected to require a risk premium (Bell et al., 2001).

We also employ coarsened exact matching for all model used in this research. This is to ensure that the assignment of observations into the treatment group and control group was random. We set each covariate into three equal bins, or strata. Ten covariates were input into the CEM model. Table 8, panel A presents the matching CEM summary. Out of a total of 209 strata generated by the CEM model, 37 strata contained both connected and unconnected observations. A total of 101 out of 122 connected observations were matched with 214 out of 598 unconnected observations. Table 8, panel B presents the result of the replication of the model by the CEM method. The table reveals a consistent result with that in Table 6 further supporting our hypothesis.

## 5. Conclusion

This paper wants to examine the relationship between RMC and audit fees. Based on a demand-oriented view on auditing, we hypothesize that there is a positive association between RMC and audit fees. On the other hand, we predict that there is a negative association between the independent commissioner and audit fee. We also predict that independent commissioners and risk management committees negatively related to audit fees. We argue that the influence of the independent commissioner is bigger than the RMC since the position of independent commissioner is higher than the RMC position in terms of choosing an external auditor.

This study complements the previous research conducted by Larasati et al. (2019) who analyzed an independent audit committee's role on the relationship between the RMC and audit fees. Our results also show the same results where RMC causes higher audit fees due to better audit requests. We complement the research Larasati et al. (2019) by looking at whether a greater proportion of independent commissioners will affect the relationship between RMC and audit fees. In addition, we also provide additional analysis by looking at the influence of the role of the number of employees, company size, and leverage on the relationship between RMC and audit fees.

**Table 7. Additional analysis**

	(1)	(2)	(3)
	LNFEF	LNFEF	LNFEF
RMC_EMP	0.109* (1.88)		
RMC_FSIZE		0.182*** (2.98)	
RMC_LEV			0.906*** (3.33)
RMC	-0.604 (-1.32)	-3.970*** (-2.80)	-0.246 (-1.47)
DIBOC	-0.148 (-1.65)	-0.147 (-1.65)	-0.174* (-1.96)
DIBOD	-0.041 (-0.70)	-0.028 (-0.48)	-0.050 (-0.84)
BIG4	0.758*** (11.34)	0.761*** (11.44)	0.778*** (11.64)
PCON	0.150* (1.88)	0.159** (1.99)	0.141* (1.77)
EMP	0.095*** (3.26)	0.121*** (4.39)	0.114*** (4.16)
ROA	0.007** (2.47)	0.006** (2.29)	0.007** (2.58)
FSIZE	0.307*** (9.78)	0.273*** (8.36)	0.297*** (9.54)
LEV	0.313** (2.13)	0.303** (2.07)	0.128 (0.83)
RECINV	-0.319** (-1.99)	-0.337** (-2.10)	-0.290* (-1.81)
_cons	13.095*** (20.91)	13.691*** (21.04)	13.254*** (21.26)
Industry Dummies	Included	Included	Included
Year Dummies	Included	Included	Included
r2	0.596	0.599	0.600
N	720	720	720

This table shows the results of multiple linear regression between interaction of number of employee, firm size, leverage and Risk Management Committee with audit fee of 720 companies listed on the IDX 2015–2018 with \*t > 1,645, \*\*t > 1,960, \*\*\*t > 2,326, significance at 10%, 5% and 1%.

Consistent with our expectations, we find for a sample of Indonesian listed companies that audit fees are higher when a company has an RMC. Conversely, audit fees are lower when a company has a proportion of independent commissioners above the median. The latter result is consistent with our hypothesis that the association between RMC and audit fees is negative but not significant if the company has an independent commissioner and RMC. This study shows results that are in line with our expectations that the audit fee for companies that have RMC is higher than for companies that do not have RMC. The opposite results are shown in the relationship between the audit fee and the independent committee. The final results in this study are consistent with our

**Table 8. Coarsened exact matching**

<b>PANEL A</b>					
	<b>RMC = 0</b>		<b>RMC = 1</b>		
All	598		122		
Matched	214		101		
Unmatched	384		21		
<b>PANEL B</b>					
	(1)	(2)	(3)	(4)	(5)
	LNFEED	LNFEED	LNFEED	LNFEED	LNFEED
RMC_DIBOC		-0.176 (-0.59)			
RMC_EMP			0.081 (0.79)		
RMC_FSIZE				0.253*** (3.68)	
RMC_LEV					1.159*** (4.59)
RMC	0.316** (2.53)	0.476* (1.71)	-0.321 (-0.41)	-5.528*** (-3.49)	-0.293 (-1.63)
DIBOC	-0.683*** (-4.25)	-0.608*** (-2.82)	-0.678*** (-4.17)	-0.654*** (-3.89)	-0.694*** (-4.74)
DIBOD	0.267** (1.97)	0.263* (1.93)	0.254** (1.97)	0.264* (1.96)	0.230* (1.66)
BIG4	0.432*** (2.89)	0.435*** (2.89)	0.449*** (3.20)	0.457*** (3.05)	0.484*** (3.14)
PCON	0.201 (1.23)	0.206 (1.27)	0.184 (1.12)	0.162 (0.98)	0.115 (0.70)
EMP	0.265*** (3.83)	0.265*** (3.83)	0.241*** (3.98)	0.282*** (4.14)	0.273*** (3.98)
ROA	0.012* (1.79)	0.012* (1.80)	0.012* (1.77)	0.011 (1.60)	0.014** (2.21)
FSIZE	0.322*** (5.91)	0.319*** (5.82)	0.327*** (6.00)	0.243*** (4.38)	0.316*** (5.82)
LEV	-0.211 (-0.76)	-0.202 (-0.72)	-0.177 (-0.66)	-0.192 (-0.70)	-0.688** (-2.36)
RECINV	-0.362 (-0.94)	-0.376 (-0.97)	-0.349 (-0.90)	-0.198 (-0.52)	-0.243 (-0.63)
_cons	12.060*** (12.25)	12.049*** (12.27)	12.104*** (12.22)	13.667*** (12.92)	12.191*** (12.60)
Industry Dummies	Included	Included	Included	Included	Included
Year Dummies	Included	Included	Included	Included	Included
r2	0.606	0.607	0.608	0.621	0.622
N	315	315	315	315	315

this table presents regression results testing using coarsened exact matching. Standard errors are clustered by firm and year. The asterisks \*, \*\*, \*\*\* denote significance at the 10%, 5%, and 1% levels (two-tailed), respectively.

predicted sign hypothesis, where the association between RMC and audit fees is negative but not significant if the company has a higher proportion of independent commissioner and RMC.

This research has implications for research in the field of auditing and corporate governance. In addition, the results of this study can provide consideration for the company in implementing good governance. The presence of RMC in the company will help maintain the company's quality even though there is an increase in the audit fee. The increase in audit fees can be minimized by a larger proportion of independent commissioners so that auditors consider that the risk of corporate fraud is low.

This study also has several limitations. First, the sample used in this study is relatively small, although all of Indonesia listed companies in the relevant industries. Second, much of our RMC, independent commissioner, and audit fee data are derived from annual reports, and therefore are subject to any incentives to disclose or not disclose such information that affects management actions for individual companies. Finally, given the unique institutional aspects of the Indonesian economy and market, it is not clear how our results will generalize to more market-driven economies. We leave the latter point as a basis for future research. We suggest future research to use larger sample sizes are possible because fee and governance data are publicly available.

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