

# opción

Revista de Antropología, Ciencias de la Comunicación y de la Información, Filosofía,  
Lingüística y Semiótica, Problemas del Desarrollo, la Ciencia y la Tecnología

Año 36, abril 2020 N°

91

Revista de Ciencias Humanas y Sociales

ISSN 1012-1537/ ISSNc: 2477-9385

Depósito Legal pp 198402ZU45



Universidad del Zulia  
Facultad Experimental de Ciencias  
Departamento de Ciencias Humanas  
Maracaibo - Venezuela



# The relation of business complexity to audit fee on non-financial company

**Heidiana Rachma Ningtyas<sup>1</sup>**

<sup>1</sup>Accounting Study Program, Faculty of Economics and Business,  
Universitas Airlangga, Surabaya, Indonesia  
[ningtyas.h.r@ua.ac.id](mailto:ningtyas.h.r@ua.ac.id)

**Djoko Dewantoro<sup>2</sup>**

<sup>2</sup>Accounting Study Program, Faculty of Economics and Business,  
Universitas Airlangga, Surabaya, Indonesia  
[djokodewantoro8@ua.ac.id](mailto:djokodewantoro8@ua.ac.id)

## Abstract

This study aims to examine the influence of business complexity which includes merger and acquisition, company size, Chief Executive Officer (CEO) compensation, and foreign employee to audit fee on the non-financial company. This study uses a saturation sampling method with 171 samples. The data which are used for this study is a secondary data collected from audited annual reports. The result of multiple regression analysis shows that the variables which are merger and acquisition, company size, and CEO compensation significantly influenced the audit fee. In conclusion, Mergers and acquisitions, company size, CEO compensation, and foreign employees influenced the audit fees.

**Keywords:** Audit fee, Business complexity, Non-financial.

La relación de la complejidad del negocio con la comisión de auditoría de una empresa no financiera

## Resumen

Este estudio tiene como objetivo examinar la influencia de la complejidad del negocio, que incluye la fusión y adquisición, el tamaño de la empresa, la compensación del Director Ejecutivo (CEO) y la tarifa de los empleados extranjeros para auditar la empresa no financiera. Este estudio utiliza un método de muestreo de saturación

con 171 muestras. Los datos que se utilizan para este estudio son datos secundarios recopilados de informes anuales auditados. El resultado del análisis de regresión múltiple muestra que las variables que son fusión y adquisición, tamaño de la empresa y compensación del CEO influyeron significativamente en la tarifa de auditoría. En conclusión, las fusiones y adquisiciones, el tamaño de la empresa, la compensación del CEO y los empleados extranjeros influyeron en los honorarios de auditoría.

**Palabras clave:** Comisión de auditoría, Complejidad empresarial, No financiera.

## 1. INTRODUCTION

There are lots of factors that influenced the incurring of fees by a company in which it depends on the circumstances inside the company. One of the factors that influenced audit fees is the business complexity of the audited company. Business complexity is related to the complexity that comes from the nature of the company's business. The method uses to quantify business complexity could be based on corporation size, diversification, and divisionalization of an organization (ESTEVEZ, 2006). The business complexity of a company will increase the request for demand to the auditor.

Merger and acquisition are the indicators of business complexity (ASK & LJ HOLM, 2013). Merger refers to the consolidation of two companies, as one company takeover or buys all the assets and liabilities of the other company. After combining into one entity, the two companies would have 50% stock per each as both jointly owned as a new entity. Acquisition refers to the takeover of a

company by purchasing stock or assets of other company, nevertheless, the other company still exists as a different entity.

Business complexity also could be seen from CEO compensation which based on stock options. Shareholding owned by management tends to be prudent in carrying their option as they must prevent any loss. External auditors are used to improving monitoring as audit fee is expected to increase along with CEO compensation program that improving the need for monitoring (SADYKOVA & MESKILL, 2019).

The complexity of an audited company could be seen from other companies that are widely spread geographically. A company in a smaller geographical location would be difficult to be audited. The increasing number of subsidiary companies require times that needed to audit a company (MENON & WILLIAMS, 2001). The widespread subsidiary companies outside the geographical area lead to many foreign employees being employed by the company. Foreign employees caused an increase in the cost incurred by the company. Subsequently, the size of the company becomes the indicator that shows from their total assets, total sales, average total sales, and average total assets (FERRI & JONES, 1979). Companies that have large total assets could increase the complexity of audit, thus allowing a higher audit fee. In other cases, short auditor tenure (less than three years) is associated with discretionary accruals (NASUTION & ÖSTERMARK, 2013).

The financial statements for companies that formed mergers and acquisitions would be more complicated. The number of mergers and acquisitions will increase the amount of time the audit work and it is expected to have a positive effect on audit fees (ASK & LJ HOLM, 2013). The purpose of this study is to examine the consistency of previous studies as it is said about the influence of business complexity (merger or acquisition, CEO compensation, company size, and foreign employee) to audit fees on non-financial companies listed on Indonesia Stock Exchange 2013-2015.

## **2. LITERATURE REVIEW**

The previous study regarding this topic has examined accounting complexity, assurance, and business complexity with various indicator calculations such as media exposure, mergers and acquisitions, CEO compensation, the amount of employees abroad, company size, and ownership structure. The sample for the study is 2213 companies in 2001- 2010 listed on the Stockholm Stock Exchange (SSE). The study uses primary and secondary data. The result of the study shows the variable of business complexity with the indicators which are media exposure, mergers or acquisitions, CEO compensation, the number of employees abroad, size of the company, and ownership structure significantly affects audit fees (ASK & LJ HOLM, 2013).

Other studies regarding the influence of company size, KAP reputation, the complexity of the company, type of industry, company profitability, company risk, company' fiscal year-end, and audit time lag on audit fees have been carried out. The sample for the study includes 30 companies listed on Abu Dhabi Securities Exchange (ADX) 2011. The result of the study shows the variable of company size, type of industry, the complexity of the company, independent audit committee, and audit report significantly affects audit fees.

Another study is examined the influence of company size, company profitability, directors shareholding in ownership, institutional shareholding, foreign shareholdings, leverage, the complexity of the company, independent audit committee, type of industry, KAP reputation, and audit time lag to audit fee has been carried out in Malaysia. The sample for the study is 100 of the best industrial and non-industrial companies in Malaysia in 2012. The result of the study shows that company size and company profitability significantly affects audit fee (JOSHI, DESHMUKH, SALLEH & JAFFAR, 2014).

Another study regarding characteristics of the audit committee and CEO compensation to audit fees has been done in the USA. The sample for the study uses 500 companies in the USA throughout 2001-2003. The result of the study shows the size of the audit committee, the ability of audit committee members and the independent audit committee significantly affects audit fees (VAFEAS & WAEGELEIN, 2007).

The hypothesis of this study is as follows.

H1: Merger and Acquisition have a positive effect on audit fees.

H2: CEO compensation has a negative effect on audit fees.

H3: Company size has a positive effect on audit fees.

H4: Foreign employees will have a negative effect on audit fees.

### **3. MATERIAL AND METHOD**

This study uses a quantitative research approach. The data source for this study is a secondary data source which is financial statements and annual reports of the non-financial company listed on the Indonesia Stock Exchange 2013-2015. Data source regarding the list of non-financial companies, financial statements, and annual reports in this study is obtained from [www.idx.co.id](http://www.idx.co.id) and Indonesian Capital Market Directory (ICMD) 2013-2015.

The sampling technique is how the researcher takes samples or representative samples of the available population. The sample technique method for this study uses a non-probability sampling technique, notably a purposive sampling type. Purposive sampling, also known as judgment sampling, is a sampling technique based on certain considerations, mainly from the experts. The criteria of samples in this study are non-financial companies listed on Indonesia Stock

Exchange 2013-2015, non-financial companies that released their annual reports and audited financial statements 2013-2015, companies that included audit fee on their annual report 2013-2015, and companies that present the data related to variable measurements.

The technique of data analysis uses for this study is multiple linear regression analysis. This technique could be used as a prediction model on the dependant variable, audit fee. Other independent variables that will be used are merger or acquisition, company size, CEO compensation, foreign employee. The level of trust ( $\alpha$ ) for this study is 5% (0,05).

#### **4. RESULT**

According to Bursa Efek Indonesia, the total of non-financial companies registered until 31 December 2015 is 405 companies. From this data, 171 companies consisting of 64 companies in 2013, 51 companies in 2014, and 56 companies in 2015 is selected as it is matched the criteria.

Based on the result of the study, it is known the minimum, maximum, and average values of several variables from the companies sampled during 2013-2015. In this study, there are Merger and Acquisition (M\_A), and CEO Compensation (EXCOMP) as variables measured using the dummy.

#### 4.1. Audit Fee

The highest audit fee in this study is Rp. 8.400.000.000 with log natural 22.8515, while the lowest audit fee is Rp. 52.000.000 with log natural 17.7668.

Table 1: Audit fee descriptive test result

FEE_AUDIT	N	Minimum	Maximum	Mean	Std. Deviation
	171	17.7668	22.8515	20.573810	.9773205

The value of audit fee which is proxied by FEE\_AUDIT on Table 1 shows that the average audit fee in this study is 20.573810 with standard deviation which shows the variability of the audit fee is 0.9773205.

#### 4.2. Company Size

Company size (SIZE) proxied by Log natural total asset shows the size of the company.

Table 2: SIZE descriptive test result

SIZE	N	Minimum	Maximum	Mean	Std. Deviation
	171	23.4051	32.1264	29.038633	1.4691472

Based on Table 2, it shows the average size of the company in this study is 29.038633 with a standard deviation of 1.4691472. The largest company size in this study is Rp. 89.598.832.090.495 with log natural 32.1264, while the smallest company size is Rp. 14.611.865.000 with log natural 23.4051.

4.3. Foreign employee (FE)

The foreign employee shows the number of foreign employees working in Indonesia.

Table 3. FE descriptive test result

FE	N	Minimum	Maximum	Mean	Std. Deviation
	171	.0000	3.0912	.078799	.4081544

Table 3 shows the average foreign employee in this study is 0.078799 with a standard deviation of 0.4081544. The highest foreign employee in this study is 3.0912, while the lowest foreign employee is 0 which means the sample has no foreign employees.

4.4. Merger and Acquisition (M\_A)

Merger and acquisition in this study show the numbers of companies that merger and/or acquisition throughout the year.

Table 4: Frequencies of M\_A

		Frequency	Percent
Valid	Not Merger/Acquisition	94	55.0%
	Merger/Acquisition	77	45.0
	Total	171	100.0

The result of descriptive statistics in Table 4 shows that the frequencies of companies conducting mergers and/or acquisition in this study are 77, while those that not merger and/or acquisition is 94.

4.5. CEO Compensation (EXCOMP)

CEO compensation in this study is the stock option which provides by the company.

Table 5: Frequencies of EXCOMP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CEO Has no share	103	60.2	60.2	60.2
	CEO Own shares	68	39.8	39.8	100.0
	Total	171	100.0	100.0	

The result of descriptive statistics in Table 5 shows that the frequencies of companies that provide the stock option to the CEO are 68 companies, while the companies that not provide the stock option to CEO are 103 companies. Based on the classics assumption test, this data has met its assumptions which are normality test, autocorrelation test, heteroscedasticity test, and multicollinearity test. The value of

adjusted R square in the coefficient of determination shows that the independent variable affects the dependent variable by 29% while 71% of others are affected by other factors outside of this study.

Analysis of multiple linear regression models aims to examine the effect of audit fees (FEE\_AUDIT), Merger and Acquisition (M\_A), company size (SIZE), CEO compensation (EXCOMP), foreign employee (FE) on non-financial companies throughout 2013-2015. The result of multiple linear regression models is presented as follows in Table 6.

Table 6: Multiple linear regression test result

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	11.289	1.294		8.725	.000
M_A	.280	.130	.143	2.158	.032
SIZE	.321	.045	.482	7.113	.000
EXCOMP	-.404	.129	-.203	-3.124	.002
FE	-.013	.158	-.006	-.085	.932

Based on the result in Table 6, the equation can be arranged as follows.

$$FEE\_AUDIT = 11.289 + 0.280 M\_A + 0.321 SIZE - 0.404 EXCOMP - 0.13 FE + e$$

From the result above, the audit fee is functioned to predict changes in the dependent variable. In this statement, independent variables are merger and acquisition, CEO compensation, company size and foreign employee that could change in the coming years.

The influence of merger and acquisition to audit fees in this study is analyzed using t value from multiple linear regression. According to multiple linear regression test results in Table 6, it can be concluded that mergers and acquisitions affect audit fees. It shows from the amount of t value 2.158 and significance value 0.032. This indicates a significant positive effect of merger and acquisition to audit fees at a trust level of 95%.

According to multiple linear regression test results in Table 6, it is concluded that company size influenced the audit fee. It shows the amount of t value 7.133 and the significance value 0. This indicates a significant positive effect of company size on audit fees. According to multiple linear regression test results in Table 6, it is concluded that CEO compensation influenced the audit fee. It shows from the amount of t value -3.124 and significance value 0.002. This indicates a significant negative effect of CEO compensation on audit fees. According to multiple linear regression test results in Table 6, it is concluded that a foreign employee does not influence audit fees. It shows from the amount of t value -0.085 and significance value 0.932. It indicates that a foreign employee does not affect the audit fee.

## **5. DISCUSSION**

Companies that merger and/or acquisition would have greater absolute size than companies that not merger and/or acquisition. Merger and acquisition cause the scope of the audit to develop. Based on this study, the amount of merger and acquisition is expected to

increase the amount of time the audit work, thus causes a higher audit fee. Following the previous study, this study examines merger and acquisition as it is one of the indicators of business complexity that provides positive significance to audit fees (ASK & LJ HOLM, 2013).

In this study, company size is measured by total assets owned by the company. Total assets are calculated using the log of total assets; natural logarithms of assets owned by the company. The total assets represent information owned by the company, by this means a large company which has higher business complexity possibly has large information. The large information makes a greater scope of the audit; thus the auditors tend to need more effort in auditing the company's financial statement. This shows a positive effect regarding company size to the determination of external audit fees (SIMUNIC & STEIN, 1996).

A high total asset allows the company to have a better prospect of cash flow for the long term. The high total asset also represents a Stabil company and able to obtain substantial profit, thus the company will be able to attract the government also domestic and foreign investors. This could encourage the company in choosing public accounting offices in big 4 as it is considered more competent and it has a good reputation, therefore, it would make a higher audit fee. Following the previous study, this study examines company size as it is influenced by audit fees on a company.

CEO compensation provides by a company in the form of stock options or nominal value in rupiah. Nevertheless, in this study CEO compensation is measured by stock option owned by the CEO using the dummy variable. Compensation is used as a supervision mechanism to align the interest of managers and shareholders in the company. Incentive compensation encourages executives to manage income for personal financial gain (CHENG & WARFIELD, 2005; ZHOU & JIANG, 2005). This is relevant to agency theory in which there are differences in interest between managers and shareholders.

Incentive programs based on stock options could reduce aggressive behavior by management as a risk of declining company performance. Management tends to be prudent in carrying their duties when the shareholding owned by them. This makes the management needs external auditors to improve monitoring and it is expected for the audit fee to increase as CEO compensation improves the need for monitoring. However, the number of shares held by management in this study is relatively small. This, unlike other shareholders in general, makes the shareholders are tending to own the shares for themselves, and it leads to reducing monitoring costs that could be affected by decreasing audit fees. This study is relevant to another previous study as it is said that CEO compensation provides a negative effect on audit fees. Even though, auditor independence, professionalism, and skepticism are related to audit quality (MARDIJUWONO & SUBIANTO, 2018).

In this study, a foreign employee is measured by the number of expatriates or foreign workers employed by a company. The theory is the more foreign employees are employed in a company the salary for foreign employees would be higher than local or domestic employees. If the company has lots of foreign employees, the company would have incurred more cost. This company, naturally, will be more selected in choosing KAP which has the lowest audit fee to prevent an increase in the cost incurred.

Nevertheless, in this study, there are a few companies that have foreign employees. Therefore, it can be said that the sample of this study is as good as not having foreign employees. As for companies that have foreign employees, the amount is relatively small thus it brings no impact in particular on increasing cost which makes a company more selective in choosing KAP. It means the foreign employee has no significant effect on audit fees. The result of this study opposes to the previous study that said foreign employee influenced audit fee.

## **6. CONCLUSION**

Based on the result of the study above, it is concluding that Mergers and acquisitions, company size, CEO compensation, and foreign employees influenced the audit fee. Mergers and Acquisitions have a positive effect on audit fees. Company size has a positive effect

on audit fees. CEO compensation has a negative effect on audit fees. The foreign employee does not affect significantly to audit fee.

Suggestion for others study that needs to be considered is to examine others variables besides those used in this study to give more information regarding factors that influenced audit fee and it is better to expand the scope of the study to abroad companies. This study is expected to give its additional contribution to behavioral theory in the accounting literature regarding factors that influenced audit fees in auditing. This study also expected to provide information and understanding to auditors or accounting practitioners or professional accountants regarding the influence of business complexity in a company as measured by merger and acquisition, CEO compensation, company size, and foreign employee to audit fee.

## REFERENCES

- ASK, J., & LJ HOLM, M. 2013. **Audit Fee Determinants in different Ownership Structures**. The Swedish Setting. UK.
- CHENG, Q., & WARFIELD, T. 2005. "Equity incentives and earnings management". **Account. Rev.** Vol. 80: 441–476. UK.
- ESTEVEES, J. 2006. **Establishing the relationship between enterprise systems benefits, business complexity, and business alignment in SMEs**. In: European and Mediterranean Conference on Information Systems (EMCIS). UK.
- FERRI, M., & JONES, W. 1979. "Determinants of financial structure: A new methodological approach". **J. Finance.** Vol. 34: 631–644. UK.
- JOSHI, P., DESHMUKH, A., SALLEH, N., & JAFFAR, N. 2014. "Determinants of Audit Fees in Malaysia's Top 100 Listed

- Companies: An Empirical Study”. **Int. J. Strateg. Decis. Sci.** Vol. 5: 79–98. UK.
- MARDIJUWONO, A., & SUBIANTO, C. 2018. “Independence, professionalism, professional scepticism”. **Asian J. Account. Res.** Vol. 6: 2443–4175.
- MENON, K., & WILLIAMS, D. 2001. “Long-term trends in audit fees”. **Audit. A J. Pract.** Vol. 20: 115–136. USA.
- NASUTION, D., & ÖSTERMARK, R. 2013. “Auditor fee dependence, auditor tenure, and auditor independence: the case of Finland”. **Int. J. Accounting, Audit. Perform. Eval.** Vol. 9: 224–246. USA.
- SADYKOVA, G., & MESKILL, C. 2019. “Interculturality in Online Learning: Instructor and Student Accommodations”. **Online Learning**, Vol. 23, No. 1: 5-21.
- SIMUNIC, D., & STEIN, M. 1996. “Impact of litigation risk on audit pricing: A review of the economics and the evidence”. **Auditing**. Vol. 15: 119. USA.
- VAFEAS, N., & WAEGELEIN, J. 2007. “The association between audit committees, compensation incentives, and corporate audit fees”. **Rev. Quant. Financ. Account.** Vol. 28: 241–255. Germany.
- ZHOU, Y., & JIANG, H. 2005. “Trait-associated sequence variation in the bovine growth hormone receptor 1A promoter does not affect promoter activity in vitro”. **Anim. Genet.** Vol. 36: 156–159. USA.





**UNIVERSIDAD  
DEL ZULIA**

---

## **opción**

Revista de Ciencias Humanas y Sociales

Año 36, N° 91 (2020)

Esta revista fue editada en formato digital por el personal de la Oficina de Publicaciones Científicas de la Facultad Experimental de Ciencias, Universidad del Zulia.  
Maracaibo - Venezuela

[www.luz.edu.ve](http://www.luz.edu.ve)

[www.serbi.luz.edu.ve](http://www.serbi.luz.edu.ve)

[produccioncientifica.luz.edu.ve](http://produccioncientifica.luz.edu.ve)