





GEOGRAPHIC PROXIMITY AND AUDIT OUTCOMES IN CASES OF COVID-19 PANDEMIC: EVIDENCE FROM INDONESIA


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ABSTRACT

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The geographic proximity has faced challenges with the existence of COVID-19 pandemic since 2019. This study aimed to scrutinize the effect of geographic proximity and audit quality by using COVID-19 pandemic as a moderating variable to compare before and after the situation. The samples of this study were Indonesian listed companies from 2018 to 2020 in Indonesia Stock Exchange. This study overcame self-potential selection bias and analyzed using Coarsened Exact Matching and Heckman's 2-Stage Least Square (Heckman 2-SLS). This study found that geographic proximity is significantly associated with the post-pandemic period, whereas geographic proximity did not cause problems before the pandemic. We also provided sufficient evidence of (Coarsened Exact Matching) CEM and Heckman 2-Stage Least Square which found that there were significant and appropriate results of our initial testing. The study implications relate to the auditor to consider pandemic as a factor that has effect on the audit fee.

Contribution/Originality: This is the first empirical study to provide direct evidence that geographic proximity is associated with audit quality during a pandemic. Thus, this study's significant contribution is that audit outcomes can give additional sufficient evidence about relationship between geographic proximity and audit quality considering COVID-19 pandemic as a determinant.

1. INTRODUCTION

Several previous studies have examined the relationship between auditor office size and audit quality (Chung & Kallapur, 2003; Craswell, Stokes, & Laughton, 2002; Reynolds & Francis, 2000). They conclude unequivocally that office size affects audit quality, in particular, local and non-local versions of auditors strongly influence how audit quality is produced. Auditors with relatively smaller office sizes and dominating the local area produce an audit process with different audit quality from large office auditors and do not dominate the local area. Thus, audit experts and scholars conclude on the relationship between auditor size and audit office area on audit quality, where audit area specifically indicates the distance in kilometers between an audit partner and his client in a geographic area (Francis, Reichelt, & Wang, 2005). In addition, audit quality is also influenced by the competence of local and non-local audit partners, where non-local competence is related to their audit ability which is better than local

competence. Non-local audit partners have more experience along with the number of hours they fly in carrying out audit assignments. Meanwhile, the competence of local audit partners relates to specific capabilities that are limited to the competence to carry out their audit process in that company. Therefore, audit quality is also influenced by the competence of audit partners from their assignment area (Choi, Kim, Kim, & Zang, 2010; Francis & Yu, 2009). In addition, there are no previous studies that have really tested the relationship between local and non-local audit partners as represented by geographical proximity between audit partners and clients its effect on audit quality. Thus, this raises a research debate that must be addressed, in light of that debate, we tried to examine the relationship between geographic proximity and audit quality taking into account the COVID-19 situation. To elucidate on the reasons of geographic decentralizing which might affect the quality of audit, this study examined three sorts of interactions for auditor that anticipate to be less expensive as geographic nearness increments, namely: surveilling, information sharing, and resource sharing (Dong, Robinson, & Xu, 2018).

The geographic proximity has faced challenges with the existence of COVID-19 pandemic since 2019 (Mickeler & Cleveland, 2020). In addition, the governments globally restricted face-to-face interaction and switched over to work from home policy and imposed travel limitations. This made auditors difficult to carry out physical observations based on auditing standards (Indonesian Institute of Certified Public Accountants, 2020). Indonesia, as the largest archipelago country in the world, faced a challenging situation from geographic proximity, when the storage location of client supplies belonged to a remote location. With client storage locations that are not easily accessible in the near timely, causing rubber hours in the process of delivering the financial statements that have been audited by audit partners (Bronson, Hogan, Johnson, & Ramesh, 2011; Krishnan & Yang, 2009). With the COVID-19 pandemic, it sounds that the information advantages are having more local auditors that are useful in reducing the asymmetry of information between the auditor on the local situation and clients. However, local auditors have easy access to information on the benefits derived from geographical proximity and due to client-specific knowledge over non-local auditors (Choi, Kim, Qiu, & Zang, 2012; Jensen, Kim, & Yi, 2015). Moreover, local auditors socialize constantly with clients, and sometimes the news from local media is part of client-specific news. It is meaningful in accelerating their competence to hold the clients appropriately (Agarwal & Hauswald, 2010; Choi et al., 2012; Kang & Kim, 2008; Nurhadi, Nur, Abbas, & Andru, 2022; Petersen & Rajan, 2002).

Many scholars argue that the workplaces of bigger audit companies stipulate more audit quality than small workplaces (Choi et al., 2010; Francis & Yu, 2009). Moreover, the decentralization structure of larger accountant firm accelerates the nearness of geography between auditors and clients (Beck, Gunn, & Hallman, 2019). Geographic proximity means the association within the simplicity of obtaining and evaluating delicate information. The delicate information cannot be immediately inspected by somebody other than the agent who generates that information (Hong, Kubik, & Stein, 2004). The larger audit companies attain the advantage from escalating the geographic proximity by decentralization structure to get easier access to audit evidence. Hence, the increasing geographic proximity is directly related to higher audit quality.

It suggests that the nearness of geography for auditor-client shall not enhance the efficiency of the audit process during the COVID-19 pandemic because the auditors are restricted to holding on site auditing processes (Jamie, Suzana, Joanne, & Clive, 2020; Lee, Chung, & Morscheck, 2020). Therefore, it would be a tradeoff between timeliness and the quality of reporting. The longer audit reporting delays are associated with a subordinate of quality financial statements (Kinney & McDaniel, 1993; Quick, 2014). To respond to the phenomenon, the Indonesian government, through (Chartered Public Accountant) CPA Indonesia, guides accessing clients' information during the COVID-19 pandemic by hybrid audit procedure. The Indonesian government, through Otoritas Jasa Keuangan (OJK) issued a press release in SP (Siaran Pers) No. 18 OJK/III/2020 to extend audited financial reporting during COVID-19 pandemic.

Contrary to previous research and current conditions, the aim of this study was to examine the effect of geographic proximity and the quality of audit during the pandemic of COVID-19 in Indonesia as a moderating

variable to compare the pandemic situation before and after COVID-19. This study used Indonesian listed companies in 2018 to 2019 in the Indonesia Stock Exchange as the sample. The years 2018 and 2019 samples represented the year of observation before the pandemic and 2020 during the pandemic period. The audit activities were significantly affected by the crisis conditions assumption during COVID-19 pandemic.

The remaining structure of this paper is as follows: Part 2 provides a review of the literature related to the topic of research and hypothesis development. Part 3 presents sample data and research models. Section 4 reports statistical results and discussions, as well as some additional analyses that are useful for answering research hypotheses. Finally, section 5 concludes this study.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Geographic Proximity and Audit Quality

Decentralized organizations define larger public accounting companies as having many partners outside the main office playing an essential role in contracting and managing audit assignments (Reynolds & Francis, 2000). This organizational structure has evolved because of the advantages of client-specific information and the requirements for face-to-face client connections, (Malhotra & Morris, 2009). Geographically dispersed structures are desirable because they minimize and streamline the cost of transportation and the asymmetry of information that impact the quality of audit by allowing audit companies to have a better understanding of the clients on local place and, as a result, the customers have higher confidence in locally based professional competencies (Carcello, Hermanson, & McGrath, 1992; Dong et al., 2018). This structure also helps auditor-related specifications by delegating decision-making authority to business professionals with the most in-depth understanding of customers and local market circumstances, increasing the chances that all relevant information will be analyzed.

In a similar manner, it can be argued that geographic proximity or auditor locality is related to the quality of audit because informational benefits gained from proximity aid auditors in building knowledge about client-specific features such as client incentives, aptitude, and opportunities for opportunistic profits management as well as client business exposure, which encompasses audit risks (Dong et al., 2018). Successful planning processes and identifying relevant audit risks to accuracy in evaluating audit evidence are important aspects for the auditor. This is due to client-specific knowledge such as internal control processes and the possibility for inadequate reporting (Knechel, Naiker, & Pacheco, 2007). The survey research from Carcello et al. (1992) and Beck et al. (2019) supported this theory, showing the breadth of knowledge possessed by the audit team as well as the presence of regular contact between auditors and management. The survey's evidence reported by Carcello et al. (1992) is congruent with this argument and shows that the breadth of knowledge possessed by the audit team, frequent communication between auditors and management, as well as visits to audit sites by audit engagement partners and senior managers are among the top ten audit quality attributes. Based on the preceding, anticipating the geographical proximity of auditors will assist auditors in improving the quality of audits. As a result, the initial hypothesis is suggested in the following statement:

H1: Geographic proximity has a negative relationship with the quality of audit.

2.2. Geographic Proximity and Audit Quality (Pre and Post COVID-19 Pandemic)

Previous research has shown that market participants tend to place a high value on timely financial updates. As a result, it may reach a degree when the auditing process becomes a hindrance due to the audited financial statements' timeliness. The organization may face undesirable consequences such as increasing information asymmetry and, as a result the reactions of market tend to be of negative value (Alford, Jones, & Zmijewski, 1994; Chambers & Penman, 1984). The COVID-19 epidemic stifled social activities throughout the world. The Indonesian government responded to the COVID-19 pandemic through (Chartered Public Accountant) CPA Indonesia, which provided instructions on accessing customers' information during the COVID-19 pandemic using a hybrid audit

procedure. The government's awareness of audit timeliness and quality during the COVID-19 epidemic improved auditor efficiency via the technology accessibility, the use of standard audit tools, and the general practice of information interchange across audit companies (Yu, Jin, & Liang, 2017).

The Indonesian government released a press release in SP (Siaran Pers) No. 18 OJK (Otoritas Jasa Keuangan)/III/2020 to expand audited financial reports during the COVID-19 epidemic. Furthermore, existing research shows that pandemic audit report holdups are connected with worse financial reports quality (Dong et al., 2018). This study aims to see if auditor-client geographic nearness is related to audit quality before and after the COVID-19 pandemic. As a consequence of the COVID-19 pandemic, technology has become more accessible, audit methods have become more standardized, information exchange across audit companies has become more common, and physical nearness to customers may not provide any distinct advantages (Mickeler & Cleveland, 2020).

Recent studies show that local auditors with geographic proximity between clients and auditors show an improvement in the quality of clients' financial statements compared to non-local auditors. This is due to the advantages of local knowledge over non-local auditors (Choi et al., 2012; Jensen et al., 2015; López & Rich, 2017). In many cases, local auditors' depth knowledge is closely related to the operations, motivations, and risks of their customers, and they can do fieldwork more easily (Beck et al., 2019). Furthermore, especially during the COVID-19 pandemic (Lee et al., 2020) local auditors tend to focus more on work that fits the economic and regulatory context (Yu et al., 2017).

The COVID-19 task force control strategy is based on Indonesian Government Policy 82/2020, which aims to reduce the spread of COVID-19. The COVID-19 task force is not only located in the capital city, but also in 37 other locations. As a result, each region has a unique policy, such as Jakarta's Social Restriction Policy. The "new normal" concept represents the scenario following the COVID-19 epidemic. After the COVID-19 epidemic, geographic closeness will still be important in the auditing process (Jamie et al., 2020). The region's economic and regulatory climate are good knowledge for local auditors as well as the influence of the customer's environment (Choi et al., 2012).

This information advantage would suggest more efficient audit planning and execution, which would result in increased audit efficiency. The efficiency of audit improvements through auditor-client closeness are expected to boost audit quality. As a result, the second hypothesis is suggested in the following statement:

H2: Geographic proximity has a negative relationship with the quality of audit in Post COVID19 pandemic.

3. METHODS

Multiple linear regression method was utilized in this study to explore the link between geographic proximity and audit quality before and after the COVID-19 Pandemic. This study applied an analytical model involving control variables, industry parameters, and year effects. The companies listed on the Indonesia Stock Exchange were the subjects sampled for this study.

The years 2018 and 2019 samples represented the years of observation before the pandemic and 2020 during the pandemic. The audit activities were significantly affected by the crisis conditions occurred during the pandemic. In this study, Audit quality refers to previous research (Bartov, Gul, & Tsui, 2000; Choi et al., 2012; DeAngelo, 1981; Healy, 1985; Jones, 1991; Kim, Lee, & Lee, 2015) and measured it with following Equation 1:

Measurement of Non-Discretionary Accruals

$$NDA_{it} = \alpha_1 [1/TAS_{it} - 1] + \alpha_2 [(\Delta REV_{it}) / TAS_{it} - 1] + \alpha_3 [PPE_{it}/TAS_{it} - 1] \quad (1)$$

Table 1 presents information about the variables used from Equation 1, which are NDA (Non Discretionary Accruals), TREV (Total Revenue), and TAs (Total Assets), as shown below.

Table 1. Variable definitions for non-discretionary accruals.

NDA	: Non-discretionary accruals from the corporate <i>i</i> in year <i>t</i> as measured by lagged total assets
ΔREV_{it}	: Total revenues of the company <i>i</i> in year <i>t</i> minus the total revenue for previous year
PIPE	: The gross Property, Plant, and Equipment (PPE) of company for end year
TAS_{it-1}	: The previous year's total assets of the firm
$\alpha_1, \alpha_2, \text{ dan } \alpha_3$: Industry parameters and specific year

To measure Discretionary Accruals, we performed Equations 2 and 3, where Equation 2 consisted of the variables TAc (Total Accruals), TAs (Total Assets), TREV (Total Revenue), and Property, Plant, and Equipment (PPE) (Total gross PPE of a company). Equation 3 consisted of the variables TAs (Total Assets), CA (Current Assets), Cash, CL (Current Liability), DCL (Debt including Current Liability), and DAE (Depreciation and Amortization Expense). Furthermore, we performed Equation 4 to measure audit quality consisting of total accruals compared with total assets, as shown below.

Measurement of Discretionary Accruals was as follows:

$$(TAc_{it}/TAs_{it} - 1) = \beta_1 (1/TAs_{it} - 1) + \beta_2 [(\Delta TREV_{it}) / TAs_{it} - 1] + \beta_3 (PPE_{it}/TAs_{it} - 1) + \varepsilon_{it} \dots\dots\dots (2)$$

$$TAct = (\Delta CA_t - \Delta Casht) - (\Delta CL_t - \Delta DCL_t) - DAPt \dots\dots\dots (3)$$

Measurement of Audit Quality was as follows:

$$AQ_JON = |TAc_{it}/TAs_{it} - 1| * (-1) \dots\dots\dots (4)$$

The definition and operational variables of Equation 2 and 3 are presented and explained in Table 2 and Table 3 as shown below.

Table 2. Variable definitions for discretionary accruals.

TAc_{it}	Total accruals in year t with accruals value composition
$\beta_1, \beta_2, \text{ dan } \beta_3$	Estimation of ordinary least squares (OLS) of 1, 2, and 3, respectively
E_{it}	Residual term
ΔCA_t	The fluctuation of Current Asset for a particular year t
$\Delta Casht$	The exchange of cash and cash equivalents for a specific fiscal year t
ΔCL_t	The fluctuation of current obligations in a particular year t
ΔDCL_t	For a particular year t, the change of debt is included in current liabilities.
DAEt	Expenses for depreciation and amortization for a particular year t

Table 3. Variable definition for audit quality.

AQ_JON	Audit Quality
$ TAc_{it}/TAs_{it} - 1 $	Absolute of Total Accruals

This study obtained the distance between the leading company and the public accounting firm listed for the geographic proximity variable in the annual reports. From the previous studies by Choi et al. (2012); Francis et al. (2005); Pirinsky and Wang (2006) geographic proximity variable's measurement was also determined by the local and non-local auditors with dummy measurements. This study chose slightly different measurement model as was adopted in the study by Chang, Oh, Park, and Jang (2017). Table 4 presents variables and operational definitions used in this study. To test Hypothesis 1, this study devised the following regression model, which linked the dependent variable (AQ_JON_{it}), the independent variable ($Geo_proximity_{it}$), and a battery of control factors ($COV_{i,t}, PINDCOMSIZE_{i,t}, BOARDSIZE_{i,t}, BUSY_AUDITOR_{i,t}, ARL_{i,t}, RMC_{i,t}, CLIENTSIZE_{i,t}, LEV_{i,t}, CURRATIO_{i,t}, CFO_{it}, FINSLACK_{i,t}, ROA_{i,t}, Industry\ Fixed\ Effect_{i,t}, Year\ Fixed\ Effect_{i,t}$):

$$\begin{aligned}
 AQ_JON_{it} = & \beta_1 + \beta_2 Geo_proximity_{it} + \beta_3 COV_{it} + \beta_4 PINDCOMSIZE_{it} + \beta_5 BOARDSIZE_{it} \\
 & + \beta_6 BUSY_AUDITOR_{it} + \beta_7 ARL_{it} + \beta_8 RMC_{it} + \beta_9 CLIENTSIZE_{it} + \beta_{10} LEV_{it} \\
 & + \beta_{11} CURRATIO_{it} + \beta_{12} CFO_{it} + \beta_{13} FINSLACK_{it} + \beta_{14} ROA_{it} \\
 & + Industry\ Fixed\ Effect + Year\ Fixed\ Effect + \varepsilon \dots \dots \dots \dots \dots (5)
 \end{aligned}$$

Table 4. Variable definitions and measurement.

Initial Variable	Variable Name	Definitions
Dependent Variable		
AQ_JON	Audit Quality	Measured using the Jones Discretionary Accrual Model.
Interested Variable		
Geo_Proximity	Geographic Proximity	The distance in kilometers between the main company and the Auditor's Office in the Auditor's report.
Control Variable		
COV	COVID-19	Dummy Variable, 1 if the year of observation shows the COVID-19 pandemic period and 0 if otherwise.
PINDCOMSIZE	Independent Commissioner	Percentage of Total Independent Commissioners divided by Total Commissioners.
BOARD SIZE	Board Size	The total number of directors and commissioners on boards.
BUSY_AUDITOR	Busy Auditor	The number of busy auditors auditing the company in one year of the observation period.
ARL	Audit Report Lag	The number of days between the date of the financial statements and the date of the audit report.
RMC	Risk Management Committee	Dummy Variable, 1 if the company has a Risk Management Committee, and 0 if otherwise.
CLIENTS	Client Size	Natural Logarithm of Client Company Total Asset.
LEV	Leverage	Liabilities divided by total assets measure financial leverage.
CURATION	Current Ratio	Current assets are divided by total assets.
COA	Cash from Operating Activities	Divide net cash flow from operational operations by total assets.
FINSLACK	Financial Slack	Cash and cash equivalents / total assets.
ROA	Return on Asset	Net profit divided by total assets measures returns on equity.
Industry Fixed Effect	Industry Fixed Effect	Dummy variable of the industry classification based on statistic tool.
Year Fixed Effect	Year Fixed Effect	Dummy variable of the year classification based on statistic tool.
Instrumental Variable		
LNBSGS	Natural logarithm of Business and Geographic Segments	The natural log of the sum of the number of business and geographic segments less one. If a company or geographic segment data for a specific Compustat observation is missing, we assign a value of 1.

The samples selected for this study are shown in Table 5. Panel A shows that although the total number of initial samples is 1197, there are 400 companies with incomplete data and had to be excluded from the research sample. Panel B presents the distribution of samples by industry classification and the period before – after pandemic. Although this study uses unbalanced data, it is appropriate to show that the period before has a smaller sample than the period after the pandemic.

4. RESULTS AND DISCUSSION

4.1. Empirical Result

In Table 6, Panel A shows the statistics descriptive of the entire sample. Geo_Proximity in kilometers shows that geographically, the closest distance is 0.096, and the maximum is 2055km, with an average of 107,423. It can be interpreted that companies tend to choose auditors who are geographically close to them. Regardless of the many motivations why auditors with shorter distances will be chosen, companies certainly have considerations that help them achieve the benefits of auditing activities.

Table 5. Sample selection and firm distribution by industry and period.

Panel A: Sample selection process						
Selection criteria	Observations					
Initial observations	1197					
Excluded: companies with incomplete data	(400)					
Final observations	797					
This table summarizes the sample selection for the period as well as the sample businesses' industry split. Panel A also discusses how the firm-year observations for the regression analysis in this study were chosen.						
Panel B: Firm distribution by industry and period						
Industry	Before Pandemic		After Pandemic		Total	
	N	%	N	%	N	%
(SIC 0) Agriculture, Forestry and Fisheries	13	52.00	12	48.00	25	100
(SIC 1) Mining	55	49.10	57	50.90	112	100
(SIC 2) Construction Industries	93	46.73	106	53.27	199	100
(SIC 3) Manufacturing	60	49.18	62	50.81	122	100
(SIC 4) Transportation, Communications and Utilities	58	45.31	70	54.69	128	100
(SIC 5) Wholesale & Retail Trade	40	53.33	35	46.67	75	100
(SIC 6) Finance and Banking	0	0.00	49	100	49	100
(SIC 7) Service Industries	31	45.59	37	54.41	68	100
(SIC 8) Health, Legal, and Educational Services and Consulting	8	42.11	11	57.89	19	100
Total	358	44.92	439	55.08	797	100
Panel B provides an industry split of the companies as well as firm-year observations. The industry is classified using one-digit SIC (Standard Industrial Classification) codes.						

Table 6. Statistic descriptive (Panel A).

Panel A. Statistics Descriptive Full Sample					
Variables	Mean	Median	Standard Deviation	Minimum	Maximum
AQ_JON	-0.081	-0.058	0.108	-1.708	-0.000
Geo_Proximity	107.423	10.300	305.513	0.096	2055.000
COV	0.551	1.000	0.498	0.000	1.000
PINDCOMSIZE	0.401	0.375	0.126	0.000	1.200
BOARD SIZE	8.521	8.000	3.153	4.000	21.000
BUSY_AUDITOR	4.604	4.000	3.195	1.000	18.000
ARL	4.461	4.454	0.306	3.367	5.252
RMC	0.144	0.000	0.352	0.000	1.000
CLIENTS	26.880	27.855	3.647	16.856	33.495
LEV	0.558	0.476	1.048	0.006	19.970
CURATION	2.413	1.480	3.539	0.000	39.130
COA	0.051	0.041	0.103	-0.420	0.914
FINSLACK	0.102	0.062	0.117	0.001	0.820
ROA	3.595	3.150	11.786	-67.930	73.010

In Table 6, Panel B shows a comparison between the company's descriptive statistics before and after the pandemic. It can be seen that audit quality has decreased significantly, as shown in the minimum audit value after the pandemic (-1.708) compared to the previous year.

This condition is a natural thing that occurs in times of crisis, chaos, and unpredictable situations. However, busy auditors are more in conditions after the pandemic than before the pandemic auditors who signed on the Auditor's report held in at least four companies (median 4.000).

Table 6. Statistic descriptive (Panel B).

Panel B. Statistic Descriptive for Split Sample										
Variables	Before Pandemic					After Pandemic				
	Mean	Median	Std. Dev	Min	Max	Mean	Median	Std. Dev	Min	Max
AQ_JON	-0.081	-0.059	0.091	-0.782	-0.000	-0.082	-0.056	0.120	-1.708	-0.000
Geo_Proximity	98.341	9.400	293.777	0.096	2055.000	114.829	10.800	314.899	0.500	1985.000
COV	0.000	0.000	0.000	0.000	0.000	1.000	1.000	0.000	1.000	1.000
PINDCOMSIZE	0.384	0.333	0.136	0.000	1.200	0.415	0.400	0.115	0.000	1.000
BOARD SIZE	8.796	8.000	3.184	4.000	21.000	8.296	8.000	3.113	4.000	20.000
BUSY_AUDITOR	4.229	4.000	2.583	1.000	12.000	4.909	4.000	3.593	1.000	18.000
ARL	4.364	4.431	0.224	3.434	4.949	4.541	4.511	0.339	3.367	5.252
RMC	0.098	0.000	0.297	0.000	1.000	0.182	0.000	0.386	0.000	1.000
CLIENTS	26.807	27.940	3.776	17.451	33.474	26.940	27.768	3.541	16.856	33.495
LEV	0.621	0.486	1.488	0.020	19.970	0.507	0.466	0.431	0.006	4.889
CURATION	2.162	1.400	2.674	0.000	35.180	2.618	1.500	4.104	0.060	39.130
COA	0.050	0.037	0.108	-0.311	0.914	0.052	0.047	0.098	-0.420	0.461
FINSLACK	0.097	0.061	0.105	0.001	0.688	0.107	0.063	0.127	0.001	0.820
ROA	3.441	3.405	12.324	-60.570	60.540	3.721	2.950	11.341	-67.930	73.010

Table 7. Pearson correlation.

Variables	[1]	[2]	[3]	[4]	[5]	[6]	[7]
	AQ_JON	Geo_Proximity	COV	Pindcomsize	Board Size	Busy_Auditor	ARL
[1]	1.000						
[2]	-0.095*** (0.007)	1.000					
[3]	-0.002 (0.950)	0.027 (0.449)	1.000				
[4]	0.026 (0.465)	-0.001 (0.971)	0.122*** (0.001)	1.000			
[5]	0.113*** (0.001)	-0.139*** (0.000)	-0.079** (0.026)	-0.083** (0.020)	1.000		
[6]	-0.058* (0.100)	-0.076** (0.033)	0.106*** (0.003)	0.074** (0.037)	0.032 (0.360)	1.000	
[7]	-0.105*** (0.003)	0.031 (0.375)	0.287*** (0.000)	-0.010 (0.784)	-0.255*** (0.000)	0.016 (0.647)	1.000
[8]	-0.020 (0.573)	-0.053 (0.131)	0.120*** (0.001)	-0.030 (0.397)	0.152*** (0.000)	0.013 (0.715)	-0.053 (0.138)
[9]	-0.018 (0.618)	0.029 (0.409)	0.018 (0.608)	-0.022 (0.539)	0.191*** (0.000)	0.043 (0.225)	-0.099*** (0.005)
[10]	-0.130*** (0.000)	-0.018 (0.606)	-0.054 (0.126)	0.053 (0.134)	-0.029 (0.417)	0.012 (0.744)	0.092*** (0.009)
[11]	-0.167*** (0.000)	0.065* (0.068)	0.064* (0.071)	-0.031 (0.383)	-0.105*** (0.003)	-0.011 (0.761)	0.052 (0.140)
[12]	0.277*** (0.000)	-0.054 (0.131)	0.011 (0.757)	0.037 (0.299)	0.182*** (0.000)	-0.006 (0.876)	-0.203*** (0.000)
[13]	-0.056 (0.114)	-0.085** (0.016)	0.041 (0.252)	-0.017 (0.638)	0.022 (0.540)	0.125*** (0.000)	-0.031 (0.386)
[14]	0.057 (0.108)	0.020 (0.573)	0.012 (0.739)	0.065* (0.066)	0.217*** (0.000)	0.052 (0.146)	-0.256*** (0.000)
	[8]	[9]	[10]	[11]	[12]	[13]	[14]
	RMC	CLIENTS	LEV	CURATION	COA	FINSLACK	ROA
[8]	1.000						
[9]	0.028 (0.426)	1.000					
[10]	-0.004 (0.913)	-0.074** (0.038)	1.000				
[11]	-0.050 (0.158)	0.021 (0.549)	-0.145*** (0.000)	1.000			
[12]	0.045 (0.206)	0.043 (0.221)	-0.071** (0.046)	-0.057 (0.108)	1.000		
[13]	0.009 (0.808)	0.059* (0.093)	-0.071** (0.046)	0.323*** (0.000)	0.138*** (0.000)	1.000	
[14]	0.072** (0.043)	0.076** (0.033)	-0.220*** (0.000)	0.062* (0.082)	0.412*** (0.000)	0.205*** (0.000)	1.000

Note: p-values in parentheses.
* p < 0.1, ** p < 0.05, *** p < 0.01.

Table 7 indicates Pearson correlation to test the autocorrelation between one variable and another one in the equation of this study. This test found that the metric between geographic proximity (Geo_Proximity) was negatively correlated with audit quality (AQ_JON) as predicted by this study. Control variables partially show the correlation metric with the primary variable of this study (AQ_JON). For example, BOARD SIZE is positively connected with AQ JON, indicating that the greater is the number of boards in a corporation, the higher is the audit quality.

4.2. Geographic Proximity and Audit Quality in Indonesia

To test the hypothesis 1, this section predicts a negative association between geographic closeness and audit quality. The results of the regression equation model between geographic proximity and audit quality are shown in Table 8. It indicates the coefficient of Geo_Proximity is 0.000 and negative significant at the 5% level ($t=-2.36$). Thus, it can be said that the research hypothesis 1 is accepted. Companies with more geographical proximity between the companies' headquarters will reduce the quality of audits produced. On the other hand, companies with closer geographic proximity tend to benefit by better audit quality.

Table 8. OLS regression result for Geo_Proximity and audit quality.

Variables	AQ_JON
Geo_Proximity	-0.000** (-2.36)
COV	0.008 (0.96)
PINDCOMSIZE	0.017 (0.58)
BOARDSIZE	0.002* (1.65)
BUSY_AUDITOR	-0.002 (-1.63)
ARL	-0.019 (-1.47)
RMC	-0.019* (-1.79)
CLIENTSIZE	-0.001 (-0.52)
LEV	-0.015*** (-4.35)
CURATION	-0.004*** (-4.12)
COA	0.294*** (7.46)
FINSLACK	-0.032 (-0.95)
ROA	-0.001** (-2.27)
Industry Fixed Effect	Included
Year Fixed Effect	Included
_cons	0.030 (0.42)
r2	0.170
r2_a	0.147
N	797

Note: In this study, 797 samples are used in the regression. Audit Quality (AQ JON) is the dependent variable. The sample includes all IDX-listed companies from before (2018) and after (2019) pandemic. Standard mistakes are classified according to industry and year. All continuous variables are winorized at the 1% and 99.9% levels. The t-statistics are shown in parenthesis. Significance is calculated as * 10%, ** 5%, and *** 1%.

Due to geographical proximity, the decline in audit quality occurs because the information of transfer and communication process are not achieved. Auditors who are not geographically close to the firm have challenges in learning client-specific features including motivations, capabilities, chances for opportunistic profits management, and client business concerns that necessitate audit risk assessment. In general, COVID-19 presents its challenges for auditors and companies. First, the audit process is hampered due to adjustments that had to be made in the midst of a pandemic. Second, the companies will not experience difficulties in operational or administrative or managerial activities. In this case, geographical proximity becomes an important key and has a high impact during this crisis.

To counteract biases from industry features and year-to-year circumstances, this study adds industry and year fixed effects to the equation in general. The control variables in this study are compatible with the general specifications' primary conclusions. Companies with higher Cash from Operating Activities (COA) and a higher number of boards in the firm (BOARD SIZE) are shown to be positively and substantially related to better audit quality. In testing this equation, the results show consistency with the hypothesis built, companies with far geographic proximity indicate low audit quality.

This study finds that geographic proximity (Geo_Proximity) is significantly associated with the post-pandemic period, whereas geographic proximity does not cause problems before the pandemic. This finding is appropriate with many previous researches on the identical topic that local Auditors benefit from the advantage of geographic proximity during a pandemic because they have more easily access to client-specific knowledge relative to the non-local Auditor (Choi et al., 2012; Jensen et al., 2015). It also supports the finding that the decentralization structure in Big 4 audit companies increases geographic proximity (Beck et al., 2019) and provides higher quality audits than small offices (Choi et al., 2010; Francis & Yu, 2009).

The finding of this study provides significant contributions to many existing works of literature for quality of audit. First, this study gives additional literature that audit quality is influenced by the nearness of geographic office (called geographic proximity) as a determinant and considered the COVID-19 pandemic effect. The findings fill a vacuum in the literature by revealing substantial interconnections between offices, extending the within-offices perspective of the process for audit. Even so, offices' distancing creates friction that prevents these exchanges from taking place. Second, by taking into account the COVID-19 pandemic impact, the study's findings enable auditors in developing an effective audit approach to improve audit quality. Third, auditors use geographic proximity to minimize and streamline transportation costs and information asymmetry that impact audit quality by enabling audit companies to have a deeper understanding of local customers, giving clients more confidence in locally located professional skills. This study is the first research in Indonesia phenomena for looking at the relationship between geographic proximity and audit quality, although there has been a lot of previous research on the subject.

4.3. Additional Test

4.3.1. Split Sample - Regression Analysis

To test Hypothesis 2, we conduct this test with divides the primary sample as predicted regarding the limitations of the audit process due to the COVID-19 pandemic. Indonesia responded to the Implementation of Restrictions on Community Activities with various Large-Scale Social Restrictions (LSSR) policies. As a result, the freedom of movement and access required in companies auditing activities will be limited. The results caused by differences in pressure and crisis conditions will cause geographic proximity to have significant results compared to pre-crisis conditions. Thus, this study divides the sample of this study and gets the assumptions verified. The results are shown in Table 9. Audit quality (AQ_JON) is significantly related to geographic proximity (Geo_Proximity) in the post-pandemic period, whereas geographic proximity is not significant amid pandemic. Even though our two distribution periods show the same coefficient (0.000) and are negative, significant at the 5% level ($t=-2.19$) is only accepted in conditions after COVID.

Table 9. Split sample regression – before and after pandemic COVID – 19.

Variables	Before Pandemic	After Pandemic
	AQ_JON	AQ_JON
Geo_Proximity	-0.000 (-0.43)	-0.000** (-2.19)
COV	0.012 (1.48)	0.006 (0.80)
PINDCOMSIZE	0.083** (2.42)	-0.013 (-0.28)
BOARDSIZE	0.003* (1.78)	0.001 (0.65)
BUSY_AUDITOR	0.003 (1.49)	-0.003** (-2.21)
ARL	0.013 (0.57)	-0.034** (-2.11)
RMC	-0.004 (-0.22)	-0.016 (-1.20)
CLIENTSIZE	-0.001 (-0.53)	-0.001 (-0.36)
LEV	-0.014*** (-4.14)	-0.029** (-2.37)
CURRATIO	0.001 (0.82)	-0.006*** (-4.65)
COA	0.109** (2.30)	0.475*** (7.92)
FINSLACK	-0.042 (-0.88)	-0.034 (-0.78)
ROA	0.000 (0.48)	-0.002*** (-3.91)
Industry Fixed Effect	Included	Included
Year Fixed Effect	Included	Included
_cons	-0.160 (-1.42)	0.116 (1.19)
r ²	0.149	0.294
r ² _a	0.101	0.260
N	358	439

Note: This table summarizes the results of the split sample from OLS regression for this study's hypothesis testing. This test was carried out after the data had been winsorized for 1 percent and 99 percent. In parenthesis, you'll see t statistics. *p < 0.1, **p < 0.05, and ***p < 0.01.

4.4. Potential Self-Selection Bias

The data supported the predictions that geographic proximity between the auditor and customers had a negative association with audit quality. Thus, there will be a potential self-selection bias that occurs from the test model. First, the selection of geographic proximity may involve the driving force of factors that cannot be controlled with certainty. This may happen because it is not sure that the companies realize and take into account the geographical distance that will lead to an event of practical value. Second, the assumption that geographic proximity is exogenous with potential endogeneity problems has been investigated by previous studies. That's why this study chose the Coarsened Exact Matching model and Heckman approach.

4.5. Coarsened Exact Matching

This is the first empirical study to provide direct evidence that geographic proximity is associated with audit quality during a pandemic. To maintain the results and produce a suitable test, this study uses Coarsened Exact Matching (CEM) approach because of the potential for bias and the sensitivity to crisis conditions. In contrast to some other approaches, CEM is not prone to random matching problems (Ngoc & Nguyen, 2013). According to the results stated in Table 10, companies with geographical proximity between auditors and increasingly distant clients will result in poorer audit quality.

Table 10. Coarsened exact matching – regression result.

Variables	AQ_JON
Geo_Proximity	-0.000* (-1.74)
PINDCOMSIZE	0.023 (0.70)
BOARD SIZE	0.001 (0.55)
BUSY_AUDITOR	-0.002** (-2.03)
ARL	0.000 (0.02)
RMC	-0.002 (-0.22)
CLIENTSIZE	0.001 (0.82)
LEV	-0.011 (-1.26)
CURRATIO	-0.003 (-1.12)
COA	0.207*** (3.16)
FINSLACK	-0.079 (-1.42)
ROA	-0.001 (-1.31)
Industry Fixed Effect	Included
Year Fixed Effect	Included
_cons	-0.088 (-1.10)
r ²	0.138
r ² _a	0.089
N	388

Note: t statistics in parentheses
* p < 0.1, ** p < 0.05, *** p < 0.01.

4.6. Two-Stage Heckman

This study chose the Heckman approach model, as in previous research (Choi et al., 2012; Dong et al., 2018) to solve the problem of endogeneity through two approaches as suggested by Lennox, Francis, and Wang (2012). (See Table 11 Heckman 2SLS Regression). In the first stage, this study models the DGeo_Proximity by changing the measurement value to dummy 1 if it is above the average and 0 otherwise. Next, the instrumental variable approach was used to refer to Choi et al. (2012) namely LNBGS. LNBGS was obtained from the natural logarithm of the business and geographic segment, with both values being reduced by 1. Next, giving a rating of 1 if the business and geographic segment data is intended for businesses that do not have comprehensive data (missing data). This first stage is followed by our 12 control variables (COV, PINDCOMSIZE, BOARD SIZE, BUSY_AUDITOR, ARL, RMC, CLIENTSIZE, LEV, CURRATIO, CFO, FINSLACK, and ROA) to determine the effect of the instrument in the first stage model.

In the second stage, this study included the IMR (Inverted Mills Ratio) in the model equation as an additional control variable to correct self-potential bias. Although in the first stage, it cannot be found any significance in instrument variables. However, the companies with more geographic proximity would lower their audit quality in the second stage, even though the IMR (Inverted Mills Ratio) inverse did not show any significance. The DGeo_Proximity coefficient was negatively and significantly related in this test. So, this test was at the same time an added value, and we believed that the test results were free from self-selection bias.

Table 11. 2SLS Heckman regression.

Variables	First Stage	Second Stage
LNBGS	-0.046 (-0.67)	
DGeo_Proximity		-0.016** (-2.31)
COV	0.152 -1.46	0.026** -2.00
PINDCOMSIZE	0.252 -0.67	0.05 -1.22
BOARD SIZE	-0.051*** (-3.00)	-0.004 (-1.10)
BUSY_AUDITOR	-0.025* (-1.72)	-0.005* (-1.74)
ARL	0.123 -0.72	-0.004 (-0.20)
RMC	-0.101 (-0.74)	-0.031** (-2.09)
CLIENTSIZE	0.054*** -3.87	0.006 -1.48
LEV	-0.281** (-2.16)	-0.063** (-2.25)
CURRATIO	0.002 -0.16	-0.005 (-1.22)
COA	0.427 -0.84	0.346*** -2.86
FINSLACK	-0.778* (-1.80)	-0.128* (-1.77)
ROA	-0.004 (-0.81)	-0.001 (-1.55)
IMR		0.192 -1.59
Industry Fixed Effect	Included	Included
Year Fixed Effect	Included	Included
_cons	-1.528 (-1.60)	-0.32 (-1.36)
r ² _a		0.15
r ² _p	0.084	
N	797	797

Note: t statistics in parentheses
* p < 0.1, ** p < 0.05, *** p < 0.01.

5. CONCLUSION

Geographic proximity has various advantages, including decreased transportation costs and reduced information asymmetry by allowing audit companies to have better understanding of local customers and, as a result, clients to have higher trust in the competence of locally located professionals (Carcello et al., 1992). This is the first study in Indonesia to test the association between geographic proximity with audit quality using listed companies on Indonesia stock exchange during 2018-2019. The results of this study show that geographic proximity is negatively associated with audit quality. It means the lower audit firms and clients are associated with higher audit quality.

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REFERENCES

Agarwal, S., & Hauswald, R. (2010). Distance and private information in lending. *The Review of Financial Studies*, 23(7), 2757-2788. Available at: <https://doi.org/10.1093/rfs/hhq001>.

- Alford, A. W., Jones, J. J., & Zmijewski, M. E. (1994). Extensions and violations of the statutory SEC Form 10-K filing requirements. *Journal of Accounting and Economics*, 17(1-2), 229-254. Available at: [https://doi.org/10.1016/0165-4101\(94\)90011-6](https://doi.org/10.1016/0165-4101(94)90011-6).
- Bartov, E., Gul, F. A., & Tsui, J. S. (2000). Discretionary-accruals models and audit qualifications. *Journal of Accounting and Economics*, 30(3), 421-452. Available at: [https://doi.org/10.1016/S0165-4101\(01\)00015-5](https://doi.org/10.1016/S0165-4101(01)00015-5).
- Beck, M. J., Gunn, J. L., & Hallman, N. (2019). The geographic decentralization of audit companies and audit quality. *Journal of Accounting and Economics*, 68(1), 101234. Available at: <https://doi.org/10.1016/j.jacceco.2019.101234>.
- Bronson, S. N., Hogan, C. E., Johnson, M. F., & Ramesh, K. (2011). The unintended consequences of PCAOB auditing standard Nos. 2 and 3 on the reliability of preliminary earnings releases. *Journal of Accounting and Economics*, 51(1-2), 95-114. Available at: <https://doi.org/10.1016/j.jacceco.2010.06.002>.
- Carcello, J. V., Hermanson, R. H., & McGrath, N. T. (1992). Audit quality attributes: The perceptions of audit partners, preparers, and financial statement users. *Auditing*, 11(1), 1-15.
- Chambers, A., & Penman, S. (1984). Timeliness of reporting and the stock price reaction to earnings announcements. *Journal of Accounting Research*, 22(1), 21-47. Available at: <https://doi.org/10.2307/2490700>.
- Chang, Y. K., Oh, W.-Y., Park, J. H., & Jang, M. G. (2017). Exploring the relationship between board characteristics and CSR: Empirical evidence from Korea. *Journal of Business Ethics*, 140(2), 225-242. Available at: <https://doi.org/10.1007/s10551-015-2651-z>.
- Choi, J.-H., Kim, C., Kim, J.-B., & Zang, Y. (2010). Audit office size, audit quality, and audit pricing. *Auditing: A Journal of Practice & Theory*, 29(1), 73-97. Available at: <https://doi.org/10.2308/aud.2010.29.1.73>.
- Choi, J.-H., Kim, J.-B., Qiu, A. A., & Zang, Y. (2012). Geographic proximity between auditor and client: How does it impact audit quality? *Auditing: A Journal of Practice & Theory*, 31(2), 43-72. Available at: <https://doi.org/10.2308/ajpt-10241>.
- Chung, H., & Kallapur, S. (2003). Client importance, nonaudit services, and abnormal accruals. *The Accounting Review*, 78(4), 931-955. Available at: <https://doi.org/10.2308/accr.2003.78.4.931>.
- Craswell, A., Stokes, D., & Laughton, J. (2002). Auditor independence and fee dependence. *Journal of Accounting and Economics*, 33, 253-275. Available at: [https://doi.org/10.1016/S0165-4101\(02\)00044-7](https://doi.org/10.1016/S0165-4101(02)00044-7).
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3(3), 183-199. Available at: [https://doi.org/10.1016/0165-4101\(81\)90002-1](https://doi.org/10.1016/0165-4101(81)90002-1).
- Dong, B., Robinson, D., & Xu, L. E. (2018). Auditor-client geographic proximity and audit report timeliness. *Advances in Accounting*, 40(12), 11-19. Available at: <https://doi.org/10.1016/j.adiac.2017.12.001>.
- Francis, J. R., Reichelt, K., & Wang, D. (2005). The pricing of national and city-specific reputations for industry expertise in the US audit market. *The Accounting Review*, 80(1), 113-136. Available at: <https://doi.org/10.2308/accr.2005.80.1.113>.
- Francis, J. R., & Yu, M. D. (2009). Big 4 office size and audit quality. *The Accounting Review*, 84(5), 1521-1552. Available at: <https://doi.org/10.2308/accr.2009.84.5.1521>.
- Healy, P. M. (1985). The effect of bonus schemes on accounting decisions. *Journal of Accounting and Economics*, 7(1-3), 85-107. Available at: [https://doi.org/10.1016/0165-4101\(85\)90029-1](https://doi.org/10.1016/0165-4101(85)90029-1).
- Hong, H., Kubik, J. D., & Stein, J. C. (2004). Social interaction and stock market participation. *The Journal of Finance*, LIX(1), 137-163.
- Indonesian Institute of Certified Public Accountants. (2020). Consideration of alternative procedures in testing the calculation and observation of inventory during the Covid-19 pandemic period. Technical Newflash April 2020. KAISP-IAPI. Jakarta.
- Jamie, G., Suzana, V., Joanne, G., & Clive, M. (2020). What is the impact of COVID-19 on your going concern assessment? What is the impact of COVID-19 on your going concern assessment? Deloitte Touche Tohmatsu, July, 1-6. USA.
- Jensen, K., Kim, J.-M., & Yi, H. (2015). The geography of US auditors: Information quality and monitoring costs by local versus non-local auditors. *Review of Quantitative Finance and Accounting*, 44(3), 513-549. Available at: <https://doi.org/10.1007/s11156-013-0416-2>.
- Jones, J. J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research*, 29(2), 193-228. Available at: <https://doi.org/10.2307/2491047>.
- Kang, J. K., & Kim, J. M. (2008). The geography of block acquisitions. *The Journal of Finance*, 63(6), 2817-2858. Available at: <https://doi.org/10.1111/j.1540-6261.2008.01414.x>.

- Kim, H., Lee, H., & Lee, J. E. (2015). Mandatory audit firm rotation and audit quality. *Journal of Applied Business Research*, 31(3), 1089-1106. Available at: <https://doi.org/10.19030/jabr.v31i3.9245>.
- Kinney, J. W. R., & McDaniel, L. S. (1993). Audit delay for firms correcting quarterly earnings. *Auditing*, 12(2), 135-142.
- Knechel, W. R., Naiker, V., & Pacheco, G. (2007). Does auditor industry specialization matter? Evidence from market reaction to auditor switches. *Auditing: A Journal of Practice & Theory*, 26(1), 19-45. Available at: <https://doi.org/10.2308/aud.2007.26.1.19>.
- Krishnan, J., & Yang, J. S. (2009). Recent trends in audit report and earnings announcement lags. *Accounting Horizons*, 23(3), 265-288. Available at: <https://doi.org/10.2308/acch.2009.23.3.265>.
- Lee, K. Y., Chung, C. Y., & Morscheck, J. (2020). Does geographic proximity matter in active monitoring? Evidence from institutional blockholder monitoring of corporate governance in the Korean market. *Global Economic Review*, 49(2), 150-170. Available at: <https://doi.org/10.1080/1226508X.2019.1699846>.
- Lennox, C. S., Francis, J. R., & Wang, Z. (2012). Selection models in accounting research. *The Accounting Review*, 87(2), 589-616. Available at: <https://doi.org/10.2308/accr-10195>.
- López, D. M., & Rich, K. T. (2017). Geographic distance and municipal internal control reporting. *Advances in Accounting*, 36, 40-49. Available at: <https://doi.org/10.1016/j.adiac.2016.08.003>.
- Malhotra, N., & Morris, T. (2009). Heterogeneity in professional service firms. *Journal of Management Studies*, 46(6), 895-922. Available at: <https://doi.org/10.1111/j.1467-6486.2009.00826.x>.
- Mickeler, J.-M., & Cleveland, S. (2020). Answering the call for change in the audit and financial reporting landscape. Deloitte Touche Tohmatsu, 1-2. Retrieved from: <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Audit/gx-audit-answering-the-call-for-change.pdf>.
- Ngoc, P. A. D., & Nguyen, D. (2013). Accounting in a developing transitional economy: The case of Vietnam. *Asian Review of Accounting*, 21(1), 74-95. Available at: <https://doi.org/10.1108/13217341311316959>.
- Nurhadi, H., Nur, B., Abbas, Y. E., & Andru, B. (2022). The effect of experience and professionalism on auditor's performance in Jakarta and Surabaya accounting firms during Pandemic the COVID - 19. *Journal of Accounting, Business and Finance Research*, 15(2), 66-72. Available at: <https://doi.org/10.55217/102.v15i2.559>.
- Petersen, M. A., & Rajan, R. G. (2002). Does distance still matter? The information revolution in small business lending. *The Journal of Finance*, 57(6), 2533-2570. Available at: <https://doi.org/10.1111/1540-6261.00505>.
- Pirinsky, C., & Wang, Q. (2006). Does corporate headquarters location matter for stock returns? *The Journal of Finance*, 61(4), 1991-2015. Available at: <https://doi.org/10.1111/j.1540-6261.2006.00895.x>.
- Quick, R. (2014). *Reviews of essays Blankley, Alan I./Hurt, David N./MacGregor, Jason E.: The Relationship between Audit Report Lag and Future Restatements*, *Auditing: A Journal of Practice & Theory*, May 2014: Darmstadt Technical University, Department of Business Administration.
- Reynolds, J. K., & Francis, J. R. (2000). Does size matter? The influence of large clients on office-level auditor reporting decisions. *Journal of Accounting and Economics*, 30(3), 375-400. Available at: [https://doi.org/10.1016/S0165-4101\(01\)00010-6](https://doi.org/10.1016/S0165-4101(01)00010-6).
- Yu, J., Jin, X., & Liang, S. (2017). Does the geographical proximity between the chairman and the CEO affect internal control quality? *China Journal of Accounting Studies*, 5(3), 344-360.

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