

Audit fees and related party transactions: Evidence from Indonesia

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ABSTRACT

This study empirically examines the impact of related party transactions on audit fees, focusing on distinguishing between tunneling-type and propping-type related party transactions. We investigate this causal relationship by analyzing the influence of various related party transactions on audit fees at the account level, allowing us to pinpoint the specific transactions that exert a more substantial influence on audit costs. Our research sample comprises 127 Indonesian manufacturing firms listed on the Indonesian Stock Exchange during the years 2020-2021, resulting in a dataset of 254 observations. Audit fees are quantified using the natural logarithm of the disclosed annual audit fees. We assess tunneling-type related party transactions by examining the proportion of assets and expenses involved in these transactions, breaking them down into categories such as account receivables, other receivables, and other assets. Similarly, propping-type related party transactions are evaluated based on the proportion of liability-based and sales-based transactions, further disaggregated into account payables, other payables, and other liabilities. Our hypothesis testing relies on a Panel Data Regression analysis model. Our findings reveal that tunneling and propping-type related party transactions significantly increase audit fees. Notably, we demonstrate that tunneling-related party transactions exert a more substantial impact on audit fees than propping-related party transactions, highlighting the significance of agency theory in understanding the risks associated with related party transactions.

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Introduction

Audit fees represent an external factor that significantly influences audit quality (Ayu *et al.*, 2019). They are contingent upon various factors, including firm size, audit complexity, and audit risks. Larger, more complex firms with higher inherent risks necessitate increased audit efforts to ensure the integrity of financial statements and avoid misguiding financial statement users, resulting in higher audit fees (Perwita & Harymawan, 2021). Within this context, related party transactions introduce an added layer of complexity due to their involvement with multiple parties and operations (Kohlbeck & Mayhew, 2017). This complexity may lead to an impact on audit fees. Several studies have delved into related party transactions, often focusing on accounting discrepancies and audits related to problematic transactions of this nature (Perwita & Harymawan, 2021). Henry *et al.* (2007) documented 83 financial statement fraud cases linked to related party transactions and managerial motivations for rationalization.

Related party transactions present a dual perspective, with potential benefits and drawbacks. On the positive side, these transactions can enhance firm value by enabling multiple parties to share resources, improve transaction efficiency, and bolster asset returns (Habib *et al.*, 2017; Al-Dhamari *et al.*, 2018). Conversely, they can exacerbate conflicts of interest between controlling and minority shareholders, elevate audit risks, and ultimately lead to higher audit fees (Rasheed *et al.*, 2021). These transactions are particularly susceptible to agency conflicts, and many Indonesian firms engage in them, often due to family ownership dominance. Furthermore, Indonesian firms primarily involve themselves in related party transactions related to assets, liabilities, sales, and expenses (Supatmi *et al.*, 2019). Data from the Financial Services Agency (FSA) indicates a significant prevalence of related party transactions among Indonesian issuers in comparison to other corporate actions during the period from 2018 to 2021, with percentages of 49.74 percent (2018), 48.1 percent (2019), 42.78 percent (2020), and 53.61 percent (2021).

The complexity of identifying related parties, depending on managerial disclosures and internal controls, presents a considerable challenge to auditors regarding related party transactions (Kushwaha *et al.*, 2022). Moreover, auditors may need to correct their opinions on firms' financial statements in related party transactions (El-Helaly, 2018). The American Institute of Certified Public Accountants (AICPA) considers these transactions challenging to audit and potential indicators of audit risks. This is corroborated by empirical evidence, with related party transactions frequently identified as one of the top ten audit frauds by the

Securities and Exchange Commission (SEC) Law Enforcement Commission (Perwita & Harymawan, 2021). Consequently, firms engaged in numerous related party transactions present auditors with more significant challenges, potentially violating the reasonableness assumption and encouraging auditors to view these transactions as significant red flags (Kohlbeck & Mayhew, 2017).

Rasheed *et al.* (2021) reveal a positive impact of related party transactions on audit fees due to their complexity and associated risks. These findings align with research conducted by Al-Dhamari *et al.* (2017) in Malaysia and Habib *et al.* (2015) in China. However, Kohlbeck and Mayhew (2017) could not document a positive effect of related party transactions on audit fees, observing that these transactions primarily affect financial statement restatements. Gordon *et al.* (2007) also find that audit standards related to these transactions mitigate their impact on audit fees because auditors do not view related party transactions as a fraudulent mechanism.

This study empirically analyzes the impact of related party transactions on audit fees among publicly listed manufacturing firms in Indonesia for the years 2020-2021. We specifically focus on manufacturing firms due to their concentrated family ownership structure, which makes them more susceptible to related party transactions (Utama *et al.*, 2010). Additionally, the manufacturing industry in Indonesia is diverse, encompassing various subsectors and representing the most significant number of listed firms on the IDX. Manufacturing firms often have more complex financial statements than service and other main-sector firms, potentially resulting in higher audit fees (Sinaga & Rachmawati, 2018; Tagesson *et al.*, 2009). We chose the years 2020-2021 as our observation period because they were marked by the Covid-19 pandemic and an economic crisis, factors likely to impact firm performance (Putra, 2020) and motivate firms to engage in various corporate actions, with percentages of 42.78 percent and 53.61 percent, respectively. Therefore, these years provide an appropriate context for our research.

To assess the impact of related party transactions on audit fees, we measure these transactions in terms of assets, liabilities, revenues, and expenses, considering their detailed accounts. We categorize the transactions into tunneling- and propping-type related party transactions (Supatmi & Wukirasih, 2022). Tunneling-type (propping-type) related party transactions refer to those that tend to erode (enhance) firm value (Cheung *et al.*, 2009). However, according to Cho & Lim (2018), both tunneling and propping transactions are initiated by controlling shareholders, potentially leading to conflicts between controlling and minority shareholders when non-controlling shareholders cannot effectively monitor the

discretionary behavior of controlling shareholders. Consequently, our study offers additional empirical evidence supporting the application of agency theory to the relationship between related party transactions and audit fees in Indonesia, particularly among manufacturing firms. Our detailed measurement of related party transactions allows for a better distinction between tunneling-type and propping-type transactions and their respective effects on audit fees.

Literature Review

The agency theory indicates that related party transactions may incur agency problems. Several studies have underscored conflicts of interest among stakeholders as an agency problem (Mu'nis & Komaladewi, 2019). Agency problems occur because of information asymmetry between agents directly involved in managing firms and principals with agents who can better control firms' information and decisions. Such information asymmetry makes it difficult for principals to monitor agents' behaviors (Purba *et al.*, 2020). Besides, agents can engage in opportunistic behavior by maximizing revenues and harming shareholders for their interests through related party transactions to extract firms' wealth for their personal interests (Gordon & Henry, 2005; Jensen & Meckling, 1976; Kristiyani, 2020). Related party transactions can be divided into two types: tunneling-type and propping-type ones. Although propping-type related party transactions promote efficiency, tunneling-type, and propping-type related party transactions potentially escalate conflicts between majority and minority shareholders.

Related Party Transactions and Audit Fees

Indonesia Financial Accounting Standard Statement No. 7, addressing the Disclosure of Related Parties (Ikatan Akuntan Indonesia, 2021), regulates transfers of resources, services, or liabilities among related parties, regardless of whether these transactions involve specific pricing. This standard mandates disclosing various items in financial statements, including the relationships between the reporting entity and related parties, compensation provided to key management personnel, and transactions involving related parties (Perwita & Harymawan, 2021). Related party transactions are inherently complex, involving managers, directors, and related firms, which can encompass subsidiaries, joint ventures, firms owned by family members, or those owned and affiliated with multiple key individuals (Ullah *et al.*, 2019). These transactions can be categorized as either tunneling-type or propping-type.

Related party transactions have a positive impact on audit fees because auditors perceive them as increasing audit risks (Al-Dhamari *et al.*, 2018). Gordon *et al.* (2007) argue that related party transactions pose auditing challenges due to their limited identifiability, reliance on management for detailed information, and ineffective internal controls in detecting such transactions. Audit Standard 550 (2015) emphasizes auditors' responsibility for related party transactions during financial statement audits. It mandates that auditors comprehend the nature and relationships of related parties to identify potential fraud factors and make conclusions based on audit evidence. Related party transactions present several risk factors, including complex and undisclosed transactions, which managers can exploit for collusion and manipulation.

Furthermore, these transactions may occur outside typical business operations, deviating from fair market terms and conditions (Gordon *et al.*, 2007). The heightened risks associated with related party transactions incentivize auditors to identify and ensure that these transactions do not mislead financial statement users. This perspective is corroborated by studies conducted in Malaysia (Tee, 2018), Germany (Schierstedt & Corten, 2021), Bangladesh (Khan *et al.*, 2015), and Korea (Woo *et al.*, 2010), all of which demonstrate a positive relationship between related party transactions and audit fees.

H₁: Related party transactions positively affect audit fees.

The Effects of Tunneling-type and Propping-type Related Party Transactions on Audit Fees

Tunneling refers to related party transactions aimed at shifting a firm's resources to benefit controlling shareholders (Cheung *et al.*, 2009; Budiyaniti *et al.*, 2020). Tunneling negatively impacts firms while favoring majority shareholders. This practice involves two mechanisms: (1) controlling shareholders redirecting firm resources for personal gain through self-dealing transactions, such as asset expropriation, excessive executive compensation, and self-interested transactions (Henry *et al.*, 2007), and (2) controlling shareholders increasing their share ownership without transferring assets, often through dilutive stocks, acquisitions, or transactions that disadvantage minority shareholders (Johnson *et al.*, 2000). In contrast, propping relates to related party transactions intended to enhance firm value (Steppani, 2021), standing in contrast to tunneling, which typically erodes firm value (Cheung *et al.*, 2009)—propping aims to improve resource efficiency among related firms and elevate overall firm value (Wong *et al.*, 2015). It can also serve to enhance the financial conditions of affiliated firms and benefit minority shareholders (Budiyaniti *et al.*, 2020; Adhie & Supatmi, 2022).

Tunneling-type related party transactions are characterized by greater transaction complexity compared to propping-type transactions due to their substantial nature (Johnson *et al.*, 2000). They involve intricate structures, often designed to resemble legal transactions through activities such as sale-purchase agreements, receivable transactions, cash payments, and equity transfers with related parties. For example, receivables transferred to related parties can act as a put option for those parties, allowing them not to pay these receivables in case of poor performance. Additionally, tunneling is often associated with unfair transfer prices between related parties, leading to the potential erosion of firms' profits and performance (Ubaidillah, 2022). Furthermore, tunneling-type transactions result in overstated assets and expenses, while propping-type transactions involve understated payables and sales. Auditors may find it more challenging to verify overstated accounts due to their complexity, ultimately leading to higher audit fees. In countries with weaker investor protection, tunneling-type transactions may reduce firm value, while propping-type transactions may have the opposite effect (Sari *et al.*, 2014; Tambunan *et al.*, 2017; Milhaupt & Pargendler, 2018). Detecting tunneling among Indonesian firms can be particularly challenging due to weaker law enforcement, lower-quality corporate governance, and reduced information transparency (Ayu, 2019; Dwiyani *et al.*, 2022). Tunneling-type related party transactions can heighten audit risks and associated fees, requiring auditors with a keen awareness of abnormal transaction values to uncover such activities (Johl *et al.*, 2016; Brundy *et al.*, 2014). Therefore, it is likely that the impact of tunneling-type related party transactions on audit fees is greater than that of propping-type transactions.

H₂: The impact of tunneling-type related party transactions on audit fees is greater than that of propping-type transactions.

Methods

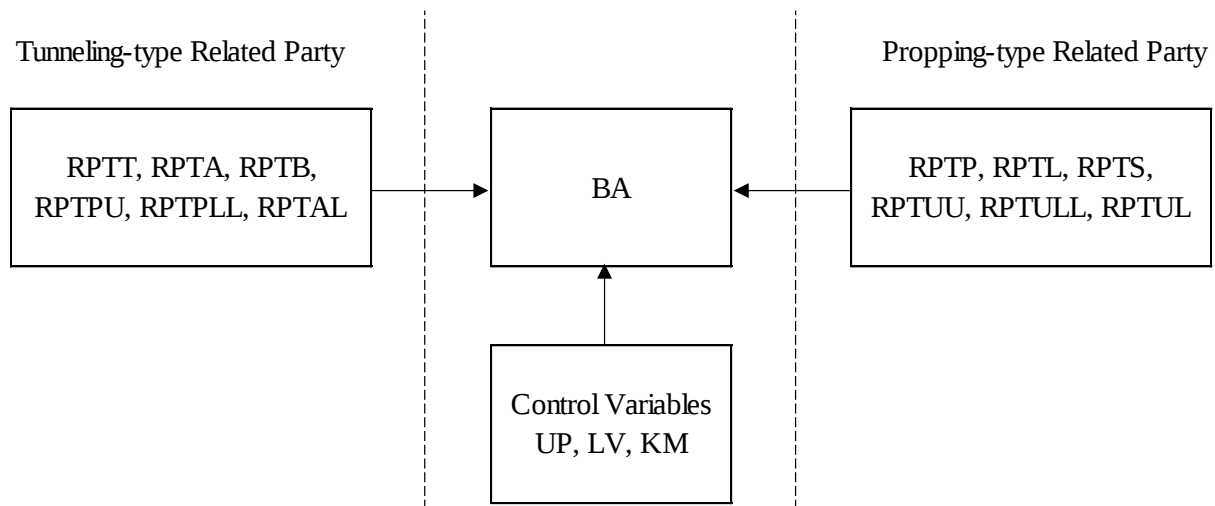
We conducted an examination of 127 manufacturing firms listed on the IDX during the period of 2020-2021, which yielded a total of 256 firm-year observations. The selection of these firms was carried out using the purposive sampling technique, guided by the specific criteria detailed in Table 1. Two observations were excluded as outliers, leaving us with a final dataset of 254 observations. Additionally, eleven firms that either did not publish their annual reports went bankrupt or discontinued their operations after their initial public offerings were excluded from the analysis. The data for this study were sourced from the annual reports of manufacturing firms for the years 2020 and 2021, retrieved from www.idx.co.id and the official websites of the respective firms.

Table 1. Sampling Selection

Criteria	N
Manufacturing firms listed on the Indonesian Stock Exchange during the years 2020-2021	214
Exclusion of firms that did not publish annual reports with fiscal years ending on December 31 in both 2020 and 2021.	(11)
Exclusion of firms lacking information on audit fees for the years 2020 and 2021.	(57)
Number of samples qualifying the criteria	127
Outlier data	2
Number of observations	254

The study's dependent variable is audit fees (BA), measured as the natural logarithm of the fees paid by the firms to their auditors for audit services, following the approach of Ayu *et al.* (2019) and Tarighi *et al.* (2020). The primary independent variable, related party transactions, is categorized into tunneling-type (RPTT) and propping-type related party transactions (RPTP), as defined by Cheung *et al.* (2009). Tunneling-type related party transactions consist of asset component-related related party transactions (RPTA) and expense component-related related party transactions (RPTB). Propping-type related party transactions encompass liability component-related party transactions (RPTL) and sales component-related party transactions (RPTS). For a more detailed analysis, RPTA and RPTL are further broken down for each account, including account receivables (RPTPU), other receivables (RPTPLL), and other assets (RPTAL) for assets, as well as account payables (RPTUU), other payables (RPTULL) and other liabilities (RPTUL). The measurement of related party transactions involves the division of all their components by the end-of-year total assets. Several control variables are incorporated into the analysis, including firm size, leverage, and managerial ownership. Firm size is quantified as the natural logarithm of total assets to mitigate the disparity between large and small firms. Leverage is determined by dividing total liabilities by total assets, while managerial ownership is represented as the percentage of managers' share ownership (comprising shares held by commissioners, managers, and directors) divided by the total outstanding shares. We evaluate our hypotheses using panel data regression analysis conducted with EViews 10 software. To test our hypotheses, we employ eight regression model equations. Based on the explanation above, the relationship between research variables of the study can be described in the research model in Figure 1.

Figure 1. Research Model



Note: RPTT: related party transactions for tunneling-type; RPTA: asset-based related-party transactions; RPTB: expense-based related party transactions; RPTPU: account receivable-related related party transactions; RPTPLL: other receivable-related related party transactions; RPTAL: other asset-based related party transactions; RPTP: related party transactions for propping-type; RPTL: liability-based related party transactions; RPTS: sales-based related party transactions; RPTUU: account payable-related related party transactions; RPTULL: other payables-related party transactions; RPTUL: other liability-based related party transactions; BA: natural logarithmic value of audit fees; UP: firm size; LV: leverage; KM: managerial ownership.

Models 1-3 pertain to tunneling-related party transactions (RPT), specifically tunneling-type related party transactions (RPTT), asset-based related party transactions (RPTA), and expense-based related party transactions (RPTB), as outlined below:

$$BA_{it} = \alpha_{0it} + \alpha_1 RPTT_{it} + \alpha_2 UP_{it} + \alpha_3 LV_{it} + \alpha_4 KM_{it} + \varepsilon_{it} \quad (1)$$

$$BA_{it} = \alpha_{0it} + \alpha_1 RPTA_{it} + \alpha_2 UP_{it} + \alpha_3 LV_{it} + \alpha_4 KM_{it} + \varepsilon_{it} \quad (2)$$

$$BA_{it} = \alpha_{0it} + \alpha_1 RPTB_{it} + \alpha_2 UP_{it} + \alpha_3 LV_{it} + \alpha_4 KM_{it} + \varepsilon_{it} \quad (3)$$

Meanwhile, models 4-6 are designed for testing propping-related party transactions (RPT), encompassing propping-type related party transactions (RPTP), liability-based related party transactions (RPTL), and sales-based related party transactions (RPTS), as detailed below:

$$BA_{it} = \beta_{0it} + \beta_1 RPTP_{it} + \beta_2 UP_{it} + \beta_3 LV_{it} + \beta_4 KM_{it} + \varepsilon_{it} \quad (4)$$

$$BA_{it} = \alpha_{0it} + \beta_1 RPTL_{it} + \beta_2 UP_{it} + \beta_3 LV_{it} + \beta_4 KM_{it} + \varepsilon_{it} \quad (5)$$

$$BA_{it} = \beta_{0it} + \beta_1 RPTS_{it} + \beta_2 UP_{it} + \beta_3 LV_{it} + \beta_4 KM_{it} + \varepsilon_{it} \quad (6)$$

As an additional test, both RPTA and RPTL are further disaggregated into individual accounts, leading to the following regression model equations:

$$BA_{it} = \alpha_{0it} + \alpha_1 RPTPU_{it} + \alpha_2 RPTPLL + \alpha_3 RPTAL + \alpha_4 UP_{it} + \alpha_5 LV_{it} + \alpha_6 KM_{it} + \varepsilon_{it}$$

$$BA_{it} = \alpha_{0it} + \alpha_1 RPTPU_{it} + \alpha_2 RPTPLL_{it} + \alpha_3 RPTAL_{it} + \alpha_4 RPTB_{it} + \alpha_5 UP_{it} + \alpha_6 LV_{it} + \alpha_7 KM_{it} + \varepsilon_{it} \quad (7)$$

$$BA_{it} = \beta_{0it} + \beta_1 RPTUU_{it} + \beta_2 RPTULL_{it} + \beta_3 RPTUL_{it} + \beta_4 RPTS_{it} + \beta_5 UP_{it} + \beta_6 LV_{it} + \beta_7 KM_{it} + \varepsilon_{it} \quad (8)$$

The following Table 2 presents the descriptive statistics of our research variables, consisting of maximum and minimum values, mean, and standard deviation. Table 2 reveals that Indonesian manufacturing firms, on average, pay substantial audit fees, amounting to approximately 680 million Rupiah (20.38) during the years 2020-2021, indicating a relatively high expenditure on audit services. Notably, the average magnitude of tunneling-type related party transactions (0.055) surpasses that of propping-type transactions (0.053), means that the

Table 2. Descriptive Statistics

Variables	Max. Value	Min. Value	Mean	Standard Deviation
BA	25.277	17.989	20.388	1.293
RPTA	0.963	0.000	0.055	0.117
RPTB	0.729	0.000	0.066	0.118
RPTPU	0.797	0.000	0.032	0.074
RPTPLL	0.376	0.000	0.006	0.033
RPTAL	0.663	0.000	0.016	0.066
RPTL	0.889	0.000	0.053	0.120
RPTS	0.741	0.000	0.064	0.119
RPTUU	0.286	0.000	0.014	0.025
RPTULL	0.855	0.000	0.015	0.081
RPTUL	0.607	0.000	0.026	0.089
UP	34.500	18.680	28.719	1.959
LV	2.821	0.003	0.494	2.783
KM	0.894	0.000	0.099	0.203

Note: BA: natural logarithmic value of audit fees; RPTA: asset-based related-party transactions; RPTB: expense-based related party transactions; RPTPU: account receivable-related related party transactions; RPTPLL: other receivable-related related party transactions; RPTAL: other asset-based related party transactions; RPTL: liability-based related party transactions; RPTS: sales-based related party transactions; RPTUU: account payable-related related party transactions; RPTULL: other payables-related party transactions; RPTUL: other liability-based related party transactions; UP: firm size; LV: leverage; KM: managerial ownership.

the listed of Indonesian firms in the study are more inclined towards engaging in tunneling-type related party transactions. Furthermore, the average firm size, represented by UP, stands at 28.71. Indonesian manufacturing firms rely on liabilities to finance approximately 49.5 percent of their assets, while only 9.9 percent of outstanding shares are owned by commissioners, managers, and directors. Further, we assess various tests to evaluate the suitability of our regression model. The results indicate that our model successfully meets the established thresholds for various diagnostic tests. The heteroskedasticity and multicollinearity tests indicate that the research data for all regression equations are free from serious heteroskedasticity and multicollinearity problems. Additionally, the Jarque-Bera test for normality and the Durbin-Watson test for autocorrelation also fall within acceptable thresholds, indicating the suitability of our model for analysis.

Moreover, the estimation tests of the panel data regression model include the F-test (Chow test), Hausman test, and Lagrange Multiplier (LM) test. The F-test, or Chow test, assesses the overall model fit by comparing the regression results of different subsets of data. The Hausman test evaluates whether the random effects or fixed effects model is more suitable, focusing on the assumption of the independence of individual-specific effects and regressors. The Lagrange Multiplier (LM) test examines the presence of unobserved individual-specific effects and their potential correlation with the independent variables. These tests collectively guide the selection of the random effect model as the most appropriate technique for testing our research hypotheses, as indicated by Table 3.

Table 3. The Results of Estimation Tests of the Panel Data Regression Model

Regression		Chow test	Hausman Test	Lagrange Test	Appropriate Model
		(Cross section Chi-square)	(Cross-section random)	(Breusch-Pagan. Both)	
Tunneling	Model 1	950.49***	3.68	114.10***	Random Effect Model
	Model 2	937.60***	6.00	113.98***	Random Effect Model
	Model 3	928.80***	3.84*	113.67***	Random Effect Model
	Model 7	928.97***	2.37**	113.92***	Random Effect Model
Propping	Model 4	939.93***	3.47	114.24***	Random Effect Model
	Model 5	929.36***	2.20	113.93***	Random Effect Model
	Model 6	928.38***	3.25	113.45***	Random Effect Model
	Model 8	937.18***	3.58	114.16***	Random Effect Model

Note: *, **, *** significant at a 10%, 5%, and 1% significance level, respectively

Result and Discussion

Table 4. Results of Hypothesis Testing

Variables	Audit Fees					
	Tunneling			Propping		
	1	2	3	4	5	6
Coefficient	9.46***	9.32***	9.47***	9.27***	9.30***	9.32***
RPTT	0.77***					
RPTA		0.91***				
RPTB			0.85***			
RPTP				0.27*		
RPTL					-0.06	
RPTS						0.46***
UP	0.38***	0.39***	0.38***	0.39***	0.39***	0.39***
LV	-0.25**	-0.29**	-0.25**	-0.31**	-0.29**	-0.26**
KM	-0.79***	-0.79***	-0.85***	-0.82***	-0.84***	-0.81***
R ²	0.30	0.29	0.30	0.29	0.29	0.29
Adjusted R ²	0.29	0.29	0.29	0.28	0.28	0.28
F-Statistic	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***

Note: RPTT: Tunnelling-type related party transactions; RPTA: asset-based related-party transactions; RPTB: expense-based related party transactions; RPTP: propping-type related party transactions; RPTL: liability-based related party transactions; RPTS: sales-based related party transactions; UP: firm size; LV: leverage; KM: managerial ownership.

*, **, *** significant at a 10%, 5%, and 1% significance level, respectively

Table 4 presents compelling evidence that related party transactions, particularly of the tunneling type, including asset-based (model 2) and expense-based (model 3), have a positive impact on audit fees. Additionally, for propping-type related party transactions, specifically sales-based ones (model 6), there is a positive correlation with audit fees. These findings suggest that firms with a higher prevalence of related party transactions, especially in assets, expenses, and sales, tend to incur higher audit fees, likely due to elevated audit risks. As a result, our initial hypothesis receives empirical validation. Therefore, the first hypothesis of the study is accepted.

These outcomes align with agency theory, which posits that related party transactions can exacerbate agency problems due to inherent conflicts of interest (Mu'nis & Komaladewi, 2019). Such transactions may give rise to opportunistic behavior, potentially leading to losses

or failures (Kohlbeck & Mayhew, 2010). Consequently, firms involved in more related party transactions are exposed to more significant audit risks, resulting in increased audit fees. This corroborates the findings of Tee (2018), Schierstedt & Corten (2021), Khan *et al.* (2015), and Woo *et al.* (2010), who have previously demonstrated a positive association between related party transactions and audit fees.

Table 4 further reveals that liability-based related party transactions do not significantly impact audit fees, and in fact, they may exhibit a negative relationship with audit fees. This could be attributed to firms disclosing these transactions more transparently and faithfully than other related party transactions. Liability-based related party transactions may be perceived as efficient and low-risk transactions, which can result in lower audit fees. Additionally, the effect of tunneling-type related party transactions on audit fees is greater than that of propping-type related party transactions. The regression coefficients and adjusted R-squared values in the tunneling tests (models 1-3) are consistently higher on average than those in the propping tests (models 4-6). This empirical support confirms our second hypothesis of the study.

Tunneling-type related party transactions tend to erode firm value, while propping-type related party transactions may enhance it (Cheung *et al.*, 2009). Furthermore, tunneling-type transactions carry higher inherent risks. These transactions allow controlling shareholders to divert firm resources for personal gain through self-dealing actions such as asset expropriation, exploiting opportunities, excessive executive compensation, and self-interested dealings (Henry *et al.*, 2007). Controlling shareholders can also augment their share ownership without transferring assets by employing dilutive stocks, acquisitions, or other measures that disadvantage minority shareholders (Johnson *et al.*, 2000). These findings align with agency theory, which posits that related party transactions give rise to agency conflicts stemming from conflicting interests (Woo *et al.*, 2010).

According to Riyanto & Toolsema (2008), tunneling-type related party transactions are prevalent in developing countries, where owners and other parties prioritize their personal interests at the expense of other stakeholders. These transactions can exacerbate agency problems within firms, leading to heightened risks and, consequently, increased audit fees. Auditors are compelled to exert additional effort to mitigate the risks associated with related party transactions (Vaes *et al.*, 2016). For instance, auditors may issue modified audit opinions that specifically address tunneling-type related party transactions, providing a rationale for potential restatements of these transactions in the future (Fang *et al.*, 2018).

Moreover, auditors may need to consider specific factors during their audits, demanding more time and effort and ultimately resulting in higher audit fees.

Asset-based and liability-based related party transactions encompass various detailed transactions. Therefore, we categorize the transaction components of related party transactions for each account, such as account receivables, other receivables, and other assets for asset-based transactions, as well as account payables, other payables, and other liabilities for liability-based transactions. Table 5 presents the outcomes of our tests examining the effects of asset-based and liability-based related party transactions on audit fees for each account.

Table 5 (model 7) reveals that specific asset-based related party transactions (account receivables) positively impact audit fees, while other asset-based related party transactions exhibit no significant effect. These findings reaffirm the prior results presented in Table 4, indicating that account receivables represent tunneling-type related party transactions that positively influence audit fees. Conversely, account payable-based related party transactions positively affect audit fees (model 8), suggesting that these transactions are high-risk propping-type related party transactions contributing to higher audit fees. However, other payable-based and other liability-based propping-type related party transactions do not affect

Table 5. Additional Testing for Model 7 and Model 8

Variables	Audit Fees (Tunneling, Model 7)	Variables	Audit Fees (Propping, Model 8)
Constant	9.49***	Constant	9.51***
RPTPU	1.13***	RPTUU	2.31***
RPTPLL	0.42	RPTULL	-1.12
RPTAL	-0.35	RPTUL	-0.73
RPTB	0.78**	RPTS	0.46**
UP	0.38***	UP	0.38***
LV	-0.26**	LV	-0.14
KM	-0.82***	KM	-0.79**
R ²	0.32	R ²	0.31
Adjusted R ²	0.29	Adjusted R ²	0.28
F-Statistic	0.00***	F-Statistic	0.00***

Note: *, **, *** significant at a 10%, 5%, and 1% significance level, respectively

audit fees significantly. The positive impact of expense-based and sales-based related party transactions on audit fees aligns with the earlier findings in Table 4. Furthermore, our additional tests confirm that consistent with the results in Table 4, tunneling-based related-party transactions have a greater effect on audit fees than propping-type transactions.

This study incorporates several control variables, and our analysis reveals that firm size positively correlates with audit fees. Larger firms are associated with greater inherent risks. Conversely, leverage and managerial ownership exhibit a positive relationship with audit fees. Highly leveraged firms or those with greater managerial ownership experience reduced audit fees due to debt's enhanced monitoring and disciplining power compared to agency costs and financial risks (Barua, 2019). Additionally, managerial ownership helps mitigate conflicts of interest stemming from managers' opportunistic behavior, enabling firms to regulate related party transactions more effectively (Hajeb, 2021).

Conclusion and Suggestion

This study aims to investigate the impact of related party transactions on audit fees, explicitly comparing the effects of tunneling-type and propping-type related party transactions. Our findings confirm that firms with a higher frequency of related party transactions, encompassing tunneling and propping types, tend to incur elevated audit fees. Furthermore, our research highlights that tunneling-type related party transactions exert a more pronounced influence on audit fees compared to their propping-type transactions.

In our study, it's worth noting that we solely measure related party transactions based on the nominal amounts reported in financial statements. We have not considered the number of related parties involved in these transactions, which could have a more significant impact on firms' behavior and outcomes, including audit fees. As a recommendation for future research, we suggest that subsequent studies explore alternative measures of related party transactions, which may provide a more comprehensive understanding of their effects.

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