

Related-Party Transactions and Audit Fees: Ordinary Versus Opportunistic Transactions¹

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Research Paper

Abstract

This study investigates the effect of the amount of related-party transactions (RPTs) on audit fees. Given the differing incentives of the parties involved, RPTs are classified into ordinary and opportunistic transactions, and the study accordingly examines whether transaction type influences audit fees. The sample comprises 87 firms listed on the Tehran Stock Exchange over the period 2018–2023, yielding 522 firm-year observations. The hypotheses are tested using panel data–based multivariate regression analysis. The results show that the amount of RPTs is positively and significantly associated with audit fees. When RPTs are disaggregated by type, ordinary transactions show no significant effect on audit fees, whereas opportunistic RPTs are positively and significantly related to audit fees. By distinguishing between transaction types in the Iranian capital market, this study provides novel evidence and extends the existing literature.

Keywords: Audit Fees, Normal RPTs, Opportunistic RPTs, Related Party Transactions.

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Introduction

Over recent decades, financial scandals involving major corporations in the United States and Europe have undermined public confidence in financial reporting and the effectiveness of auditing. Evidence suggests that related-party transactions (RPTs) have been among the underlying factors in many of these scandals. Although such transactions may formally appear to be conducted at arm's length, in practice they often serve the interests of managers, controlling shareholders, and their affiliates (Elistratova et al; 2023). According to Iranian Accounting Standard No. 12, RPT is defined as a transfer of resources, services, or obligations between related parties, regardless of whether consideration is charged. Under this standard, related parties include parent, subsidiary, associate, and joint venture entities, as well as key management personnel of the reporting entity or its parent and their close family members.

Because accounting standards require disclosure of RPTs in the notes to the financial statements, auditing these transactions is a key responsibility of independent auditors (Abdul Rasheed & Hawaldar, 2021). Accordingly, specific auditing standards addressing RPTs have been issued, including International Standard on Auditing (ISA) 550, which is adopted in Iran under the same title and numbering, and U.S. Auditing Standard No. 18. It is therefore reasonable to expect that the amount of RPTs affects the scope of audit procedures and, consequently, audit fees (Habib et al; 2015; Moshashaei et al; 2024).

A closer examination of transaction characteristics indicates that not all RPTs are inherently risky or prone to misstatement. On the contrary, some may enhance operational efficiency and facilitate resource allocation within business groups (Elistratova et al; 2023). This distinction is explicitly acknowledged in ISA 550, which notes that many RPTs occur in the ordinary course of business. In such cases, the risk of material misstatement may not exceed that associated with comparable transactions involving unrelated parties. Nevertheless, certain related-party relationships and transaction structures may lead to a higher risk of material misstatement relative to non-related-party transactions.

Accordingly, RPTs can be classified into two broad categories: ordinary and opportunistic. Ordinary RPTs are conducted in the normal course of business and under fair, market-based conditions. In contrast, opportunistic RPTs are undertaken to benefit a particular party—typically the related party—by transferring value from the firm. Examples include asset sales at below-market prices or the purchase of goods and services at inflated rates (Kohlbeck & Mayhew, 2017). As such, auditors are expected to respond differently depending on transaction type. Examining this distinction is particularly relevant in the Iranian capital market given the prevalent concentrated ownership structures, the expansion of business

groups through subsidiaries and affiliates, and the limited evidence distinguishing between ordinary and opportunistic RPTs. Accordingly, the main research problem of this study is whether the amount of RPTs affects audit fees among firms listed on the Tehran Stock Exchange and whether transaction type moderates this relationship?

This study contributes to the literature in two important ways. First, it extends research on RPTs and audit fees within the context of the Iranian capital market. Second, while prior Iranian studies have examined the association between RPTs and audit fees (Abbaszadeh et al; 2017; Khoshkar et al; 2019; Khatiri et al; 2022), to the best of our knowledge, none has explicitly distinguished between ordinary and opportunistic transactions. The robustness of the findings is further assessed through additional tests controlling for year and industry effects. Overall, the study provides new empirical evidence and offers implications for auditors, regulators, and future research.

The remainder of the paper is organized as follows. Section 2 reviews the literature and develops the research hypotheses. Section 3 describes the research methodology. Section 4 presents the empirical results, and Section 5 concludes with a discussion of the findings, limitations, and directions for future research.

2. Theoretical Framework and Hypothesis Development

a. The amount of RPTs and Audit Fees

ISA 550 recognizes that related parties do not operate independently and therefore require specific procedures and disclosures related to related-party transactions (RPTs), relationships, and balances. These requirements are intended to enable financial statement users to understand the actual or potential effects of such transactions on the financial statements. Accordingly, auditors are obligated to design and perform audit procedures that appropriately identify, assess, and respond to the risks of material misstatement arising from an entity's failure to properly identify or disclose RPTs in accordance with applicable standards.

As the amount of RPTs within a firm increases, audit complexity and the time required by the audit team are also expected to increase. In line with auditing standards, auditors incorporate this additional workload into audit planning and the estimation of audit hours, which is reflected in higher audit fees (Moshashaei et al; 2024). Gordon and Henry (2005) further argue that RPTs are among the primary causes of financial restatements. When such transactions are complex and increase restatement risk, auditors are likely to demand higher fees to compensate for increased audit risk, perform additional procedures to identify and evaluate these

transactions, and obtain reasonable assurance regarding the absence of material misstatements (Rastegar-Pouyani et al; 2023).

Prior empirical evidence is largely consistent with this line of reasoning. Abdul Rasheed and Hawaldar (2021) and Habib et al. (2015) document higher audit fees in firms reporting a greater amount of RPTs. Khatiri et al. (2022), Khoshkar et al. (2019), and Abbaszadeh et al. (2017) similarly report a positive association between RPTs and audit fees in the Iranian capital market. Moshashaei et al. (2024) provide additional evidence that a higher amount of RPTs is positively and significantly associated with audit risk in Iran. Moreover, Yari et al. (2023) find that managers in firms with more extensive RPT activity exhibit a greater propensity to seek favorable audit opinions.

In contrast, Elistratova et al. (2023) argue that in institutional environments characterized by low auditor litigation risk, weak minority shareholder protection, and high ownership concentration, audit fees may play a limited role in mitigating conflicts of interest arising from RPTs. In such settings, an increase in RPT activity does not necessarily lead to higher audit fees. Their study of Spanish firms reports a negative association between RPTs and audit fees, which they interpret as reflecting clients' preference for lower audit quality when RPTs are extensive.

Overall, the above arguments suggest that the amount of RPTs is an important determinant of audit effort and pricing. Accordingly, the first research hypothesis is stated as follows:

Hypothesis 1: The amount of RPTs affects audit fees.

b. RPTs Type and Audit Fees

Two competing perspectives dominate the literature regarding the role and implications of RPTs: the operational efficiency perspective and the conflict-of-interest perspective. From the operational efficiency viewpoint, RPTs are regarded as a natural outcome of firms' business needs. In the presence of market imperfections and high transaction costs, such transactions may facilitate internal resource allocation, reduce contracting costs, and improve operational performance (Moshashaei et al; 2024). Wong et al. (2015) argue that RPTs can enhance efficiency by enabling the reallocation of resources among affiliated firms within business groups. However, the efficiency-based interpretation may be less applicable in institutional environments characterized by weak legal enforcement and limited protection of minority shareholders. In such contexts, controlling shareholders may exploit their influence over affiliated firms to divert resources for private benefit.

From the conflict-of-interest perspective, RPTs are viewed as a mechanism for opportunistic behavior and expropriation, exploiting agency relationships and information asymmetry to transfer value away

from the firm (Yari et al; 2023). Agency theory therefore predicts a higher likelihood of abuse and financial misstatement when RPTs are used opportunistically. Accordingly, distinguishing between ordinary and opportunistic RPTs is critical for auditors, regulators, and financial statement users. Ordinary RPTs are conducted in the normal course of business and under market-based conditions, and therefore may not materially increase audit risk. In contrast, opportunistic RPTs are more likely to involve complex contractual arrangements, non-market pricing, and heightened incentives for misstatement. Examples include loans with non-market interest rates, asset transfers at preferential prices, or the provision of management services to affiliated entities (Kohlbeck & Mayhew, 2017).

As the prevalence of opportunistic RPTs increases, auditors are expected to devote greater effort, exercise more professional judgment, and perform additional procedures to ensure the accuracy, reliability, and transparency of financial reporting. This increased audit effort, in turn, is expected to result in higher audit fees. Ordinary RPTs, by contrast, are less likely to necessitate such additional effort.

Taken together, these arguments imply that heterogeneity in the nature of RPTs, particularly differences in transaction type and the roles of the parties involved, has important implications for audit risk and audit pricing. Assessing whether RPTs arise in the ordinary course of business or reflect opportunistic behavior is therefore essential for audit planning. Audit procedures, risk assessments, and the required level of professional skepticism are likely to differ across transaction types, necessitating more detailed audit evaluations. In this sense, the nature and characteristics of RPTs may increase audit complexity and misstatement risk, providing a rationale for auditors to require higher fees (Elistratova et al; 2023).

Consistent with this reasoning, Kohlbeck and Mayhew (2017) argue that firms engaging in opportunistic RPTs incur higher audit fees. Similarly, Ervianti and Supatmi (2023) distinguish between ordinary and opportunistic transactions and show that opportunistic RPTs have a more pronounced effect on audit costs. Their findings underscore the relevance of agency theory in explaining the increased audit risk associated with such transactions. Likewise, Kushwaha et al. (2022) examine RPTs in Indian firms within the corporate governance context and report a positive association between opportunistic RPTs and audit fees.

In light of the above discussion, the second research hypothesis is proposed as follows:

Hypothesis 2: The effect of RPTs on audit fees differs depending on the type of RPTs.

A review of the prior literature reveals a notable gap in the Iranian context, namely the absence of studies distinguishing between RPTs

conducted in the ordinary course of business and those undertaken with opportunistic intent. The present study addresses this gap by explicitly classifying RPTs into ordinary and opportunistic categories and incorporating this distinction into the empirical analysis.

3. Methodology

a. Design, Data and Sample

This study employs panel data-based multivariate regression analysis to test the research hypotheses. The sample comprises all firms listed on the Tehran Stock Exchange during the period 2018-2023. After applying standard screening criteria, the final sample consists of 87 firms observed over six years, yielding 522 firm-year observations. Financial and governance data are collected from the Rahavard Novin database, the official website of the Tehran Stock Exchange, and firms' published financial statements.

Data organization and preliminary processing are conducted using Microsoft Excel, while the empirical analyses are performed using EViews (version 13). The sample selection procedure is summarized in Table 1.

Table 1. Sample Selection Procedure

Description	Number
Firms listed on the TSE at the end of 2023	392
Firms with fiscal year-end other than March 20	(84)
Banks, insurance companies, investment firms, etc.	(39)
Firms with incomplete or inaccessible data (non-disclosure of audit fees)	(92)
Firms listed after 2018	(90)
Final sample size	87

b. Research Model, Variables, and Measurement

To test the study's hypotheses, two regression models are specified following Elistratova et al. (2023). Model (1) tests the association between the amount of RPTs and audit fees. Model (2) extends this specification by distinguishing between ordinary and opportunistic RPTs. The hypotheses are evaluated based on the statistical significance of the relevant coefficients and, where applicable, differences between them.

$$\begin{aligned}
 FEE_{it} = & \alpha_0 + \alpha_1 RPT_{it} + \alpha_2 OWNER_{it} + \alpha_3 LOSS_{it} & (1) \\
 & + \alpha_4 VAR_{ROA}_{it} + \alpha_5 INVRECEIV_{it} + \alpha_6 LEV_{it} \\
 & + \alpha_7 QUICK_{it} + \alpha_8 EBIT_{it} + \alpha_9 SIZE_{it} \\
 & + \alpha_{10} FOREIGN_{it} + \alpha_{11} CI_{it} + \alpha_{12} BIG_{it} \\
 & + \alpha_{13} CHANGE_{it} + \varepsilon_i
 \end{aligned}$$

$$\begin{aligned}
 FEE_{it} = & \alpha_0 + \alpha_1 RPT_BUSINESS_{it} + \alpha_2 RPT_TONE_{it} & (2) \\
 & + \alpha_3 OWNER_{it} + \alpha_4 LOSS_{it} + \alpha_5 VAR_ROA_{it} \\
 & + \alpha_6 INVRECEIV_{it} + \alpha_7 LEV_{it} + \alpha_8 QUICK_{it} \\
 & + \alpha_9 EBIT_{it} + \alpha_{10} SIZE_{it} + \alpha_{11} FOREIGN_{it} \\
 & + \alpha_{12} CI_{it} + \alpha_{13} BIG_{it} + \alpha_{14} CHANGE_{it} + \varepsilon_i
 \end{aligned}$$

Table 2. Variable Definitions

Variable	Symbol	Measurement / Definition
<i>Dependent Variable</i>		
Audit Fees	FEE	Natural logarithm of total audit fees paid by the firm
<i>Independent Variables</i>		
Related-Party Transactions	RPT	Total monetary value of related-party transactions divided by total assets
Ordinary Related-Party Transactions	RPT_BUSINESS	Monetary value of ordinary related-party transactions divided by total assets
Opportunistic Related-Party Transactions	RPT_TONE	Monetary value of opportunistic related-party transactions divided by total assets
<i>Control Variables</i>		
Large Shareholders	OWNER	Percentage of voting rights held by shareholders owning more than 5% of shares
Loss	LOSS	Dummy variable equal to 1 if net income is negative, and 0 otherwise
Change in ROA	VAR_ROA	Change in return on assets relative to the previous year
Inventories & Receivables	INVRECEIV	Ratio of inventories plus receivables to total assets
Financial Leverage	LEV	Ratio of total liabilities to total assets
Quick Ratio	QUICK	Ratio of current assets minus inventories to current liabilities
Operating Profit	EBIT	Earnings before interest and taxes divided by total assets
Firm Size	SIZE	Natural logarithm of total assets
Foreign Revenue	FOREIGN	Dummy variable equal to 1 if the firm reports foreign (export) revenues, and 0 otherwise

Variable	Symbol	Measurement / Definition
Auditor fee concentration	CI	Ratio of the firm's audit fee to the auditor's total revenues
Audit Firm Size	BIG	Dummy variable equal to 1 if the firm is audited by the Iranian Audit Organization, and 0 otherwise
Auditor Change	CHANGE	Dummy variable equal to 1 if the firm changes its auditor, and 0 otherwise

Source: The measurement of RPT and audit fee variables follows Elistratova et al. (2023). Control variables are adopted from Sadraei et al. (2021) and Elistratova et al. (2023).

Following Kohlbeck and Mayhew (2017), the classification of related-party transactions into ordinary and opportunistic categories is presented in Table 2.

Table 3. Classification of Related-Party Transactions

Type of Transaction	Managers and Controlling Shareholders	Affiliated Companies
Loans and borrowings	Opportunistic	Ordinary
Guarantees	Opportunistic	Ordinary
Consulting, legal, or investment services	Opportunistic	Opportunistic
Leases	Ordinary	Ordinary
Related business activities (e.g; purchase or sale of goods)	Ordinary	Ordinary
Unrelated business activities	Opportunistic	Opportunistic
Stock transactions	Opportunistic	Ordinary

Source: Kohlbeck & Mayhew (2017)

4. Research Findings

a. Descriptive Statistics

Descriptive statistics for all study variables are reported in Table 4, while frequency distributions for the dummy variables are presented in Table 6.

Table 4. Descriptive Statistics of Research Variables

Variable	Symbol	Min.	Max.	Mean	Median	Std. Dev.
Audit fees	FEE	4.967	11.752	8.058	8.071	0.989
Related-party transactions	RPT	0	50.304	1.312	0.453	3.965
Ordinary transactions	BUSINESS	0	33.978	1.067	0.370	2.816
Opportunistic transactions	TONE	0	42.465	0.244	0.002	2.302
Large shareholders	OWNER	0	1	0.642	0.689	0.191
Change in ROA	VAR_ROA	-67.265	44.185	2.132	1.374	12.434

Variable	Symbol	Min.	Max.	Mean	Median	Std. Dev.
Inventory & receivables ratio	INVRECEIV	0	0.926	0.510	0.522	0.192
Financial leverage	LEV	0.014	1.340	0.479	0.485	0.219
Quick ratio	QUICK	0.113	47.068	1.553	0.991	3.157
Operating profit	EBIT	-0.230	0.708	0.240	0.243	0.184
Firm size	SIZE	11.407	21.899	15.845	15.664	1.538
Auditor fee concentration	CI	0.005	52.834	1.920	1.139	3.336

As shown in Table 4, the maximum value of total RPTs is approximately 50 times total assets. Correspondingly, the maximum values for ordinary and opportunistic transactions are approximately 34 and 42 times total assets, respectively. The descriptive statistics further indicate that the mean value of ordinary RPTs (1.067) exceeds that of opportunistic RPTs (0.244). Therefore, sample firms, on average, report ordinary RPTs roughly equivalent to their total assets, whereas opportunistic RPTs amount to approximately 24% of total assets.

The mean value of audit fees (FEE) is 8.058 and is close to the median, suggesting a relatively symmetric distribution. The average financial leverage ratio is 0.479, indicating that nearly 48% of the sampled firms' capital structure consists of debt.

The amount of RPTs by transaction type and counterparty is presented in Table 5.

Table 5. Amount of RPTs (Million Rials)

Type of Transaction	Managers and Controlling Shareholders	Affiliated Companies
Loans and borrowings	44,454,462	85,802,852
Guarantees	554,730,546	2,223,644,606
Consulting, legal, or investment services	394,085	1,232,143
Leases	284,991	697,312
Related business activities (e.g; purchase or sale of goods)	1,367,660,686	5,263,555,813
Unrelated business activities	16,919,368	182,583,763
Stock transactions	20,627,648	12,033,072

In addition to the variables above, the variables LOSS, FOREIGN, BIG, and CHANGE are measured on a nominal scale. The results are reported in Table 6.

Table 6. Frequency Distribution of Dummy Variables

Variable	Description	Frequency	Percentage
Loss (LOSS_it)	No loss reported	496	95.02
	Loss reported	26	4.98
Foreign revenue (FOREIGN_it)	No foreign (export) revenue	203	38.89
	Foreign (export) revenue reported	319	61.11
Audit firm size (BIG_it)	Not audited by the Audit Organization	445	85.25
	Audited by the Audit Organization	77	14.75
Auditor change (CHANGE_it)	No auditor change	407	77.97
	Auditor changed	115	22.03

Out of 522 firm-year observations, only 26 observations (4.98%) report a loss, while 496 observations (95.02%) report positive net income, indicating a generally favorable profitability profile among the sampled firms over the study period. Foreign revenue is reported in 319 firm-year observations (61.11%), whereas 203 observations (38.89%) report no foreign revenue, suggesting that the majority of firms are engaged in international markets.

Regarding audit firm size, 77 firm-year observations (14.75%) are audited by the Audit Organization—classified as a big audit firm—whereas 445 observations (85.25%) are audited by other audit firms. Auditor changes occur in 115 firm-year observations (22.03%), while 407 observations (77.97%) experience no auditor change during the study period.

b. Hypothesis Testing Results

This section presents the estimation results of the regression models used to test the study's hypotheses. Prior to applying panel regression techniques, the Chow test is conducted to assess whether panel data estimation is preferred over pooled regression. Subsequently, the Hausman test is employed to determine the appropriate panel estimation method. The results of these tests are reported in Tables 7 and 8.

Table 7. Chow Test Results

Model	Test Statistic	Degrees of Freedom	P-Value	Result
Model 1	9.451	(86, 422)	0.000	Panel data estimation is appropriate
Model 2	24.091	(86, 421)	0.000	Panel data estimation is appropriate

The results of the Chow test indicate rejection of the null hypothesis at the 5% significance level, confirming the presence of cross-sectional

heterogeneity. Accordingly, panel data estimation is appropriate for both models. To determine whether fixed effects or random effects should be employed, the Hausman test is conducted, with results reported in Table 8.

Table 8. Hausman Test Results

Model	Test Statistic	Degrees of Freedom	P-Value	Result
Model 1	165.642	13	0.000	Fixed-effects panel model
Model 2	164.258	14	0.000	Fixed-effects panel model

The Hausman test results indicate rejection of the null hypothesis for both models, confirming that the fixed-effects specification is appropriate for estimating the regression models.

Before estimating the regression models, it is essential to assess the classical regression assumptions relevant to panel data analysis, including heteroskedasticity, serial correlation, and multicollinearity (Hashemi et al; 2012). To test for heteroskedasticity in the error terms, the likelihood ratio (LR) test is employed. The results are presented in Table 9.

Table 9. Heteroskedasticity Test Results (LR Test)

Model	Test Statistic	Degrees of Freedom	P-Value	Result
Model 1	366.01	87	0.000	Heteroskedasticity present
Model 2	372.06	87	0.000	Heteroskedasticity present

As shown in Table 9, the significance levels are below 0.05, indicating the presence of heteroskedasticity in both models. Consequently, the regression models are estimated using the Estimated Generalized Least Squares (EGLS) method with cross-sectional weighting. The estimation results are presented in Table 10.

The estimation results for Model 1 reported in Table 10. The Fisher statistic ($F_{df_1,df_2} = 78.94$) is above the corresponding critical value, confirming that the model is statistically significant with satisfactory explanatory power ($p < 0.05$). The adjusted R^2 indicates that approximately 44% of the variation in audit fees is explained by RPT and the control variables. The Durbin-Watson statistic (1.66) suggests no evidence of autocorrelation in the residuals. In addition, the variance inflation factor (VIF) values indicate the absence of multicollinearity among the explanatory variables.

The regression coefficient for RPT is 0.2104 and statistically significant at the 5% level ($p = 0.020$). Accordingly, at the 95% confidence level, related-party transactions have a positive and statistically significant effect on audit fees. These findings support the first research hypothesis.

Table 10. Summary of Regression Estimation Results

Variables	Model 1				Model 2			
	Coefficient	t-Statistic	P-Value	VIF	Coefficient	t-Statistic	P-Value	VIF
Intercept	0.4047	11.0872	0.0000	–	0.4084	11.1901	0.0000	–
Related-party transactions (RPT_it)	0.2104	2.3096	0.0201	1.1122	–	–	–	–
Ordinary RPTs (RPT_BUSINESS_it)	–	–	–	–	–0.0001	–0.1613	0.8720	1.1586
Opportunistic RPTs (RPT_TONE_it)	–	–	–	–	0.0112	6.8385	0.0000	1.0525
Large shareholders (OWNER_it)	–0.0005	–2.2768	0.0233	1.0107	–0.0005	–2.2508	0.0249	1.0107
Loss (LOSS_it)	0.0219	2.9788	0.0031	1.3509	0.0212	2.8850	0.0041	1.3532
Changes in ROA (VAR_ROA_it)	0.0003	2.0319	0.0428	1.2460	0.0003	1.9790	0.0485	1.2461
Inventory & receivables (INVRECEIV_it)	0.0976	6.0782	0.0000	1.3157	0.0984	6.1307	0.0000	1.3179
Financial leverage (LEV_it)	0.0455	2.7297	0.0066	2.2774	0.0452	2.7162	0.0069	2.2788
Quick ratio (QUICK_it)	–0.0012	–1.4542	0.1466	1.2488	–0.0012	–1.4414	0.1502	1.2488
Operating profit (EBIT_it)	–0.0572	–2.8956	0.0040	1.8604	–0.0562	–2.8467	0.0046	1.8628
Firm size (SIZE_it)	0.1011	46.4435	0.0000	1.3220	0.1009	46.3663	0.0000	1.3247
Foreign revenue (FOREIGN_it)	–0.0124	–1.6837	0.0930	1.2053	–0.0129	–1.7487	0.0811	1.2133
Auditor fee concentration (CI_it)	0.0114	12.1018	0.0000	1.1091	0.0113	12.0546	0.0000	1.1094
Audit firm size (BIG_it)	0.0115	0.8158	0.4151	1.2433	0.0115	0.8131	0.4166	1.2443
Auditor change (CHANGE_it)	–0.0048	–1.4382	0.1511	1.0547	–0.0044	–1.3235	0.1864	1.0564
<i>Model Statistics</i>								
Statistic	Model 1				Model 2			
F-Statistic (p-value)	78.94 (0.0000)				78.32 (0.0000)			
Adjusted R ²	0.44				0.54			
Durbin-Watson Statistic	1.66				1.87			

Based on the estimation results reported in Table 10 for Model 2, the Fisher statistic ($F = 78.32$) is above the corresponding critical value. Accordingly, the fitted model is statistically significant with acceptable explanatory power ($p < 0.05$). The adjusted R^2 shows that approximately 54% of the variation in audit fees is explained by different types of RPTs and the control variables included in the model.

The Durbin-Watson statistic (1.87) indicates the absence of autocorrelation. In addition, the VIF values indicate that multicollinearity is not a concern.

The coefficient on ordinary RPTs (RPT_BUSINESS) is statistically insignificant ($\beta = -0.0001$, $p = 0.872$), indicating that such transactions do not affect audit fees. In contrast, the coefficient on opportunistic RPTs (RPT_TONE) is positive and statistically significant ($\beta = 0.0112$, $p < 0.01$). These results indicate that opportunistic RPTs significantly increase audit fees, whereas ordinary RPTs do not. Accordingly, the second research hypothesis is supported.

c. Robustness Checks

To assess the robustness and reliability of the research findings, the regression models are re-estimated while controlling for year and industry fixed effects. The results, reported in Table 11, confirm the main conclusions. Specifically, RPTs continue to exhibit a positive and statistically significant relationship with audit fees. Also, ordinary RPTs remain insignificant, while opportunistic RPTs retain a positive and significant effect on audit fees, reinforcing the robustness of the study's results.

Table 11. Summary of Regression Estimation Results

Variables	Model 1			Model 2		
	Coefficient	t-Statistic	P-Value	Coefficient	t-Statistic	P-Value
Intercept	5.264	11.612	0.000	5.274	11.617	0.000
Related-party transactions (RPT_it)	0.113	2.426	0.016	–	–	–
Ordinary RPTs (RPT_BUSINESS_it)	–	–	–	–0.009	–0.497	0.619
Opportunistic RPTs (RPT_TONE_it)	–	–	–	0.056	6.993	0.000
Large shareholders (OWNER_it)	–0.003	–0.483	0.629	–0.003	–0.485	0.628
Loss (LOSS_it)	0.399	2.929	0.004	0.398	2.924	0.004
Changes in ROA (VAR_ROA_it)	0.003	1.233	0.218	0.003	1.243	0.214

Variables	Model 1			Model 2		
	Coefficient	t-Statistic	P-Value	Coefficient	t-Statistic	P-Value
Inventory & receivables (INVRECEIV_it)	0.263	1.456	0.146	0.261	1.449	0.148
Financial leverage (LEV_it)	0.045	2.243	0.025	0.042	2.230	0.026
Quick ratio (QUICK_it)	-0.015	-1.929	0.054	-0.015	-1.711	0.088
Operating profit (EBIT_it)	-0.040	-2.780	0.006	-0.041	-2.798	0.005
Firm size (SIZE_it)	0.205	7.841	0.000	0.204	7.821	0.000
Foreign revenue (FOREIGN_it)	0.131	1.784	0.075	0.130	1.767	0.079
Auditor fee concentration (CI_it)	0.092	10.828	0.000	0.092	10.821	0.000
Audit firm size (BIG_it)	0.626	7.477	0.000	0.628	7.490	0.000
Auditor change (CHANGE_it)	-0.054	-0.871	0.384	-0.055	-0.883	0.377
<i>Model Statistics</i>						
Statistic	Model 1			Model 2		
F-Statistic (p-value)	36.18 (0.000)			34.98 (0.000)		
Adjusted R ²	0.67			0.67		
Year fixed effects	Controlled			Controlled		
Industry fixed effects	Controlled			Controlled		

5. Discussion and Conclusion

The primary objective of this study was to examine the relationship between related-party transactions and audit fees in firms listed on the Tehran Stock Exchange over the period 2018-2023.

The findings related to the first hypothesis indicate that RPTs are positively associated with audit fees, suggesting that auditors perceive a higher amount of RPTs as an indicator of increased audit risk and, consequently, require higher compensation to cover the additional effort and resources needed to obtain reasonable assurance. This result is consistent with the findings of Abdul Rasheed and Hawaldar (2021), Moshashaei et al. (2024), and Khatiri et al. (2022), but contrasts with Elistratova et al. (2022).

The results for the second hypothesis reveal that the impact of RPTs on audit fees varies according to transaction type. Specifically, opportunistic RPTs have a positive and statistically significant effect on audit fees, whereas ordinary RPTs have no significant effect. This finding is

consistent with the results reported by Ervianti and Supatmi (2023), Kushwaha et al. (2022), and Kohlbeck and Mayhew (2017), but is inconsistent with the findings of Elistratova et al. (2023).

The findings indicate that auditors respond differently to ordinary and opportunistic RPTs, reflecting their professional sensitivity to the economic substance of transactions as well as to the inherent and control risks arising from such financial relationships. In particular, the results show that opportunistic RPTs are significantly associated with higher audit fees. These transactions are often characterized by concealed managerial incentives, greater complexity in financial reporting, and an increased likelihood of expropriation of minority shareholders' interests, all of which heighten audit risk. From the auditors' perspective, such characteristics necessitate an expansion in both the scope and depth of audit procedures, including additional substantive testing and enhanced evaluation of internal controls. Consequently, the greater professional effort required to obtain reasonable assurance regarding the absence of material misstatements in the financial statements is reflected in higher audit fees. This finding is consistent with risk-based auditing theory and the audit effort perspective, which posit that higher levels of audit risk require increased allocations of audit time and resources.

By contrast, the analysis of ordinary RPTs indicates that these transactions do not have a statistically significant relationship with audit fees. Auditors appear to assess such transactions within the context of firms' routine business activities, which are generally characterized by greater transparency, lower complexity, and more effective internal control mechanisms. As a result, the perceived audit risk associated with ordinary RPTs is relatively low, and there is no need for a disproportionate expansion of audit scope or additional audit resources.

Taken together, the findings suggest that the type and nature of RPTs play a decisive role in shaping auditors' professional judgments, audit effort, and, ultimately, audit fees. When transaction structures become more complex and opportunistic incentives are present, auditors tend to adopt a more conservative approach to address potential risks, thereby increasing the level of audit effort and associated costs. This differentiated response not only reflects auditors' sensitivity to financial reporting quality and indicators of potential misstatement but also underscores the importance of effective oversight of RPTs, particularly in institutional environments characterized by weaker monitoring mechanisms.

The results of this study offer several practical implications for policymakers, regulators, and audit practitioners. In light of the findings related to the first hypothesis, auditors are advised to carefully consider the amount of RPTs when evaluating prospective audit engagements. Moreover, the results of the second hypothesis suggest that auditors should

explicitly distinguish between ordinary and opportunistic RPTs during audit proposal evaluations and audit planning stages. Financial analysts may also benefit from incorporating the nature of RPTs into their analytical assessments. Given the informational value of differentiating between transaction types, it is further recommended that the Tehran Stock Exchange consider refining its disclosure requirements by mandating clearer classification of ordinary versus opportunistic RPTs and providing explicit guidance on how such distinctions should be operationalized.

Future research could extend this study by examining transaction complexity as an intervening or mediating variable in the relationship between RPTs and audit fees, using established analytical frameworks. In addition, examining the moderating role of governance and monitoring mechanisms (e.g; board structure, audit committee characteristics, or ownership concentration) may provide deeper insights into auditors' decision-making processes when confronting transaction-specific risks. Such studies would contribute to a more comprehensive understanding of audit pricing behavior and offer valuable guidance for strengthening financial transparency and corporate governance systems.

The primary limitation of this study relates to data availability and collection. Specifically, classifying RPTs as ordinary or opportunistic requires detailed examination of transaction characteristics—including purchases, sales, borrowings, and other transaction types—as well as careful identification of transaction counterparties. Since such disaggregated information is not systematically available in existing databases, the required data were manually extracted through extensive review of firms' financial statements for each firm-year observation, which was both time-consuming and resource-intensive.

Ethical Considerations

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