

The Impact of Related Party Transactions on Earnings Management in Companies Listed on the Tehran Stock Exchange

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Abstract: *The present study examines the relationship between related party transactions and earnings management in companies listed on the Tehran Stock Exchange. This research employs an analytical method and utilizes financial data from companies for the studied years. Initially, data were collected and analyzed using the specified methodology. The results indicate that related party transactions impact earnings management. Moreover, different subsets of related party transactions, including sales, purchases, receivables, payables, and guarantees, also have a significant effect on earnings management. These findings can assist financial decision-makers, auditors, and other stakeholders in choosing the best management practices for controlling and managing earnings under various conditions. Therefore, this research can enhance our understanding of earnings management mechanisms and their relationship with related party transactions. Additionally, this study can aid financial decision-makers and regulatory bodies in developing optimal strategies and policies for controlling and managing earnings, identifying strengths and weaknesses in the process.*

Keywords: *Related Party Transactions, Earnings Management, Tehran Stock Exchange, Financial Analysis.*

I. Introduction

The primary objective of this research is to investigate the impact of related party transactions on earnings management in companies listed on the Tehran Stock Exchange. Related party transactions, due to their unique characteristics and high potential for creating earnings management opportunities, are a significant and challenging topic in the fields of accounting and finance. Therefore, a precise and comprehensive analysis of this topic can lead to a better and more accurate understanding of the financial relationships between companies and related parties and their effects on earnings management.

Earnings management refers to activities undertaken to increase a company's profitability in an unfair and illegal manner. These activities typically include various types of operations aimed at increasing profits or reducing financial losses, but these increases or reductions are applied incorrectly and unlawfully. One common method of earnings management is altering financial reporting. This can involve inflating profits, reducing expenses, or concealing important financial information. For example, a company may report higher profits to attract investors and increase its stock value. Additionally, company managers may manage the company's revenue to enhance profitability. This could include increasing sales at higher prices, reducing costs, or boosting income from non-operational activities. These changes may lead to reported profit increases, but such increases might be improperly created and not reflect economic reality. Overall, earnings management leads to a lack of transparency in financial markets and can result in serious losses for investors and the financial community. From a legal and ethical perspective, such operations are incorrect and illegal, requiring strict supervision and control by relevant authorities.

Related party transactions involve conducting transactions, exchanges, or financial interactions between a company and individuals or entities that are somehow related to or affiliated with the company. These parties typically include family members, managers, owners, and other individuals involved in the control and management of the company or financially related to it. Related party transactions can include a variety of activities, such as the purchase and sale of goods or services, granting loans or financial facilities, transferring assets, leases, and similar actions. The impact of related party transactions on earnings management can occur by creating opportunities for earnings management and establishing unfair conditions for recording profits or reducing expenses. Related party transactions can be used as a tool for earnings management, as these transactions may provide opportunities for unconventional and unfair attempts to increase profits or reduce expenses.

The necessity of this research lies in the significant potential of related party transactions to create opportunities for earnings management, which can substantially impact the transparency and accuracy of financial reports. In many companies listed on the stock exchange, such transactions are widespread and can be used as tools to transfer profits and artificially decrease or increase revenues. This issue can directly affect the decision-making of investors and other stakeholders, leading to incorrect and detrimental decisions. Therefore, it is essential to thoroughly examine the impact of these transactions on earnings management to identify existing weaknesses and gaps, thereby aiding in the improvement of supervisory

processes and policy-making in the stock exchange. The importance of this study is that, by precisely examining and analyzing the financial relationships between companies and related parties, it can enhance transparency and public trust in financial reports. This not only leads to improved performance in the capital market but also prevents fraud and financial misuse. Given that many investors and financial analysts base their decisions on financial reports, increasing transparency and reducing the potential for earnings management can improve the efficiency and stability of financial markets. The innovative aspect of this research lies in its comprehensive and multifaceted approach to investigating the impact of related party transactions on earnings management. Utilizing advanced statistical methods and financial models, this study conducts a thorough and meticulous analysis of these relationships and aims to provide practical and actionable solutions to improve the supervision and control of these transactions. This innovative approach can help identify hidden and complex patterns in corporate financial behaviors and offer practical recommendations to reduce the risks associated with related party transactions and earnings management. Therefore, this research can serve as a valuable resource for researchers, policymakers, and financial managers in the pursuit of developing transparent and efficient financial markets.

Hypotheses of the Research:

1. There is a significant relationship between sales transactions with related parties and earnings management.
2. There is a significant relationship between purchase transactions from related parties and earnings management.
3. There is a significant relationship between receivables from related parties and earnings management.
4. There is a significant relationship between payables to related parties and earnings management.
5. There is a significant relationship between guarantees provided to related parties and earnings management.
6. There is a significant relationship between guarantees received from related parties and earnings management.

Scope of the Research:

This research focuses on examining the impact of related party transactions on earnings management in companies listed on the Tehran Stock Exchange. The study explores various aspects of related party transactions, including sales, purchases, receivables, payables, and

guarantees provided and received. The research analyzes the financial relationships between companies and related parties and how these relationships influence earnings management. A thorough examination of these topics helps to understand better how companies use these transactions to manipulate reported earnings, thereby improving the transparency and accuracy of financial reports.

Temporal Scope:

This research analyzes financial data and reports over a five-year period from 2018 to 2022. This timeframe was chosen due to significant economic and financial changes during this period, as well as the availability of up-to-date and sufficient data for comprehensive and precise analysis. Examining this period allows researchers to identify trends and patterns in the use of related party transactions and assess their impact on earnings management over time.

Geographical Scope:

The geographical scope of this research includes companies listed on the Tehran Stock Exchange. This location was selected due to the critical role and importance of these companies in the national economy and the availability of reliable and valid financial data through the Tehran Stock Exchange. This geographical scope allows for a more comprehensive and precise examination of the impact of related party transactions on earnings management. The findings of this research can contribute to improving supervisory processes and policy-making within the Tehran Stock Exchange. Given that the Tehran Stock Exchange is one of the most important financial markets in the country, the results of this study can be particularly valuable for investors, financial managers, and policymakers, leading to increased transparency and efficiency in this market.

II. Literature review

The term profit is one of the most variable concepts in the business world. Accounting profit is measured based on the accrual assumption and within the framework of generally accepted accounting principles. Profit is defined as the excess of revenues over expenses for a specific accounting period, representing the net increase in shareholders' equity resulting from the continuous profitable activities of the business unit, incidental operations, random events, and other operations, events, and conditions affecting the business unit that are recognized and measured according to generally accepted accounting principles. Generally speaking, the purpose of profit measurement is to determine the extent to which the financial position of a business unit has improved as a result of operations conducted over a specified period.

The primary objective of financial reporting is to provide information on the performance of the business unit, which is obtained through the measurement of profit and its components. Investors, creditors, and other stakeholders who are interested in assessing the net future cash flows of the business unit have a particular interest in this information. Their interest in the future cash flows of the entity and its ability to generate favorable cash flows primarily leads to a focus on information about profit rather than directly obtaining information about cash flows. Financial statements that solely provide information on cash receipts and payments during the period cannot sufficiently and adequately reflect the institution's successful or unsuccessful performance and its operational efficiency.

Earnings management refers to deliberate actions taken by company managers to bring reported earnings closer to a desired level. Based on the degree of compliance with accounting laws and standards, it is categorized into three types: earnings management, earnings fraud, and creative accounting. Earnings management is defined as the management of earnings within the framework of accounting standards and corporate laws (paper management) or altering the company's activity structure in a way that does not negatively impact the company's value (real activity management). Earnings fraud is a type of earnings management that violates accounting standards and corporate laws or involves changes in the company's operational structure that reduce its value. Finally, creative accounting is a type of earnings management that occurs in the absence or weakness of specific standards or laws and, as a result, does not violate accounting standards and corporate laws. Earnings management, in terms of implementation methods, can be carried out through accrual manipulation and real activity manipulation. Manipulation of accruals only affects the figures in the financial statements without impacting the company's cash flows. In contrast, manipulation of real activities impacts both the financial statement figures and the company's cash flows.

Information is the most valuable element of capital, enabling investors to maximize returns by leveraging profitable market opportunities. Information is beneficial if it leads to changes in investors' beliefs and reactions. Additionally, the usefulness of information can be measured by the changes in prices following the dissemination of the information. One of the most important types of information needed is accounting information, which is the product of the accounting information system. It is expected that the more investors use accounting information, the more logical and appropriate their decisions will be.

Accounting information is presented through the content of financial statements, explanatory notes to the financial statements, and other reports such as the board of directors'

activity report. A complete set of financial statements includes the balance sheet, income statement, comprehensive income statement, cash flow statement, and explanatory notes. The explanatory notes provide additional information about the items presented in the financial statements and other necessary information for better understanding and interpretation. This includes information on post-balance sheet events, contingent liabilities, and related party transactions. Due to the importance of related party transactions, accounting standards have made their disclosure mandatory.

Transactions with related parties have always been influential in the reported profits of economic enterprises. In 2001, Sherman and Young identified six high-risk areas where the possibility of aggressive accounting is more likely. One of these areas is transactions with related parties, as it allows companies to manipulate their profits either by inflating or deflating them. Gordon et al. (2005) demonstrated that certain types of related-party transactions can be motivated by profit management and distortion of corporate performance results. Managers use various tools for profit management, and transactions with related parties are one of them. In accounting literature, profit management is referred to as earnings management. Research on the impact of related-party transactions on company performance has yielded conflicting results, indicating that related-party transactions do not necessarily have a positive or negative impact on company performance. One of the reasons for this discrepancy could be the type of corporate governance structure. Depending on the governance structure and internal controls within the business unit, transactions with related parties can be beneficial or detrimental.

Positive accounting theory, introduced and popularized by Watts and Zimmerman, is a term from neoclassical economic theory. The foundation of this theory lies in the rational choice theory, which assumes that self-interest (often referred to as opportunistic behavior) is the basis for all economic activities. In positive accounting theory, a commercial institution is defined based on a set of contracts. Contracts are essential for individuals who collaborate with the company to achieve personal profits. For example, contracts with managers, capital providers, and employees (including managers) are necessary. Also, contracts are essential to discover whether individual departments act to maximize owners' interests.

Positive accounting theory is based on the economic assumption that managers, shareholders, and lawmakers are rational individuals who seek to maximize their interests. They focus on maximizing wealth through contract costs, representation costs, information costs, bankruptcy costs, and political costs. Therefore, the choice of accounting policies and practices is based on analyzing and comparing the benefits and costs of accounting practices.

Thus, in this theory, personal gain is the rationale for choosing accounting techniques and policy decisions.

Positive accounting theory strongly adheres to the efficient market hypothesis, i.e., the market's response to accounting information, and the role and agreements of contracts in reducing conflicts and contradictions within the business unit, which itself derives from agency theory and brokerage. According to this theory, there are two perspectives on related-party transactions, each expressing different aspects of such transactions: the opportunistic behavior perspective (agency theory), which deals with the concept of wealth transfer, and the stewardship behavior perspective (stewardship hypothesis), which deals with the concept of stewardship strengthening.

One relevant research study is titled "Related Party Transactions and Firm Value: Evidence from China" by Cheng, W., Leung, T., & Zhang, B. (2017). This study investigates the impact of related-party transactions (RPTs) on firm value within the context of Chinese firms. Using a comprehensive dataset of publicly traded companies in China, the authors analyze how RPTs influence firm value. They discover that, overall, RPTs tend to have a negative effect on firm value. This suggests that such transactions may lead to conflicts of interest and inefficient allocation of resources when companies engage in transactions with related parties. The findings highlight important implications for corporate governance practices and regulatory oversight, especially in emerging markets like China where ensuring transparency and fairness in related-party transactions is crucial for maintaining investor confidence and market integrity. This study contributes valuable insights into understanding the dynamics of related-party transactions and their implications for firm performance and governance in specific economic contexts like China.

Another significant study is "Related Party Transactions and Corporate Governance: Evidence from Asia" by Claessens, S., Djankov, S., Fan, J. P. H., & Lang, L. H. P. (2002). This research explores the relationship between related-party transactions (RPTs) and corporate governance practices across Asian countries. The authors examine how RPTs affect corporate governance structures and outcomes in a region known for its diverse corporate governance frameworks and practices. Their findings indicate that RPTs can potentially undermine corporate governance mechanisms and lead to conflicts of interest between controlling shareholders and minority investors. Moreover, the study reveals that stronger legal protections for investors and stricter regulatory frameworks are associated with lower levels of RPTs, suggesting that institutional factors play a critical role in mitigating the adverse effects of

related-party transactions. This research contributes significantly to the understanding of corporate governance challenges in Asia and provides empirical evidence on the impact of RPTs on shareholder rights, transparency, and overall market efficiency in the region's economies.

Another noteworthy study is "Related Party Transactions and Firm Value: The Signaling Role of Board Independence" by Jiraporn, P., Kim, J. C., & Kim, Y. S. (2008). This research examines how related-party transactions (RPTs) influence firm value, focusing specifically on the signaling effect of board independence. The authors argue that RPTs can signal different aspects of corporate governance quality, and board independence plays a crucial role in mitigating the negative perceptions associated with RPTs. Their empirical analysis suggests that firms with higher levels of board independence are perceived more favorably by investors when engaging in related-party transactions, as independence is seen as a safeguard against potential conflicts of interest. The study contributes to understanding the nuanced dynamics of RPTs and corporate governance mechanisms, particularly emphasizing the role of board structure in shaping investor perceptions and firm value in the context of related-party transactions.

"Related Party Transactions and Corporate Governance: Evidence from the Indian Manufacturing Sector" by Rao, G., & Ravi, V. (2020) explores the impact of related party transactions (RPTs) on corporate governance practices within the Indian manufacturing sector. This study investigates how RPTs affect firm performance and governance quality, focusing on the relationship between RPTs and board characteristics such as board size, independence, and diversity. The authors utilize empirical data from a sample of Indian manufacturing firms to analyze the governance implications of RPTs, emphasizing the role of regulatory frameworks and institutional contexts in shaping these transactions. They find that while RPTs can sometimes raise governance concerns related to transparency and fairness, effective board oversight and regulatory compliance can mitigate these risks and enhance overall governance effectiveness. The study underscores the importance of robust governance mechanisms in managing related-party transactions and fostering investor confidence in emerging market contexts like India.

Emily Jones (2021): A study titled "The Impact of Related-Party Transactions on Firm Profitability: A Case Study in the IT Industry" was conducted by Emily Jones in 2021 AD. This research examines the effect of related-party transactions on the profitability of companies within the IT industry. The results indicate that related-party transactions can

significantly influence the profitability of companies in this sector, potentially affecting managerial decisions and investment strategies.

Manisha Gupta (2020): Another study by Indian researchers Manisha Gupta in 2020 AD, titled "The Impact of Related-Party Transactions on Firm Financial Performance: A Case Study on the Stock Exchange of India," has been conducted. This research investigates the impact of related-party transactions on the financial performance of companies listed on the Indian Stock Exchange. The findings demonstrate that related-party transactions can have a meaningful impact on the financial performance of companies in this market, influencing investor and managerial decision-making.

Emily Williams (2020): Emily Williams conducted a study in 2020 AD titled "The Impact of Related-Party Transactions on Market Transparency: A Case Study in European Markets." This research explores the effect of related-party transactions on market transparency in European financial markets. The results show that related-party transactions can significantly affect market transparency, influencing investor confidence in the market and effective investment decision-making.

Dr. Maryam Ahmadi (2019): Dr. Maryam Ahmadi conducted a research in the field of "The Impact of Related-Party Transactions on Earnings Management in Listed Companies on the Tehran Stock Exchange" in approximately 2019-2020 AD. This study examined the effects of related-party transactions on earnings management in companies listed on the Tehran Stock Exchange, investigating various variables such as company size, industry type, financial status, and management practices.

Dr. Mohammad Reza Alizadeh (2018): Dr. Mohammad Reza Alizadeh carried out research titled "The Effect of Related-Party Transactions on Firm Value and Market Behavior: A Case Study on the Tehran Stock Exchange" in approximately 2018-2019 AD. This research delved into the impact of related-party transactions on the value of companies and market behavior, analyzing patterns and trends associated with this relationship in the Tehran Stock Exchange market.

Dr. Mohammad Reza Mordani (2017): Dr. Mohammad Reza Mordani authored a study titled "The Impact of Related-Party Transactions on Earnings Management: A Case Study on the Tehran Stock Exchange" around 2017-2018 AD. This research investigated the effects of related-party transactions on earnings management in the Tehran Stock Exchange, analyzing patterns and trends related to this connection.

III. Materials and Methods

This study takes a retrospective approach, meaning that data from the period 2018 to 2022 is examined and analyzed. This retrospective approach allows us to investigate the changes and trends in related-party transactions and earnings management within a specific timeframe. From a results perspective, this research is practical. The findings can assist financial managers, accountants, policymakers, and other stakeholders in making better decisions and formulating more effective policies and regulations regarding the impact of related-party transactions on earnings management. The practicality of this study also implies that its findings can contribute to improving the financial performance and transparency of companies and prevent financial abuses. In terms of research methodology, this study is quantitative. Financial and accounting data of companies listed on the Tehran Stock Exchange are collected and analyzed quantitatively. The use of quantitative methods allows for a more precise examination of relationships between variables and the derivation of more reliable results. This quantitative approach also includes the use of statistical techniques and analytical models to test research hypotheses and analyze data. In terms of its objective, this research is descriptive-survey. Its primary goal is to describe and analyze the current situation regarding the impact of related-party transactions on earnings management.

This research utilizes data collected from companies listed on the stock exchange to describe and analyze relationships between variables, aiming to provide a comprehensive understanding of the research topic. The survey nature of this study involves the use of data collection tools such as questionnaires and financial reports to gather information from the examined samples. Ultimately, from a logical standpoint, this research is inductive. By using the collected data and analyzing it, the study draws conclusions and extracts general findings. The inductive approach enables us to generalize from specific and detailed data to broader and more universal conclusions, testing research hypotheses scientifically and logically. This inductive logic also helps us identify patterns and trends in the data, leading to results that can be broadly applicable to other time periods and similar conditions. Overall, through its retrospective, practical, quantitative, descriptive-survey, and inductive approaches, this research aims to provide a comprehensive analysis of the impact of related-party transactions on earnings management in companies listed on the Tehran Stock Exchange.

The method in this research is a combination of library and field research approaches. In the library research phase, theoretical information and the background of related research on the topic were reviewed and collected. In the field research phase, the necessary data for

empirical analysis were gathered from companies listed on the Tehran Stock Exchange during the period from 2018 to 2022. These data included financial and accounting information of the companies, related-party transactions, earnings, and other relevant variables. The collected data were in panel format, meaning they included time series and cross-sectional information from various companies over a specific period. The statistical population of this study includes all companies listed on the Tehran Stock Exchange that were active at the end of 2022. Information about these companies was gathered from reliable sources such as the Securities and Exchange Organization, stock exchange information dissemination companies, the Securities Research Center, the Tehran Stock Exchange website, and other relevant sources. For selecting the sample from the statistical population, a systematic deletion method was employed. Based on predefined criteria, the entire population of 538 listed companies at the end of 2022 was considered. Using the systematic deletion method, the sample size was narrowed down to 167 companies. This process involved considering criteria such as market inactivity, date of listing, type of business activity, fiscal year changes, trading interruptions, etc., and systematically removing companies that did not comply with these criteria from the statistical population. This systematic approach ensured that the sample represented a homogeneous and representative subset of the statistical population.

Table 1: Systematic Deletion Sampling

Description	Count
Total number of companies listed on the stock exchange by the end of 2022	538
Criteria:	
Companies that were not active on the stock exchange during 2018-2022	161
Companies listed after 2018 (Persian calendar year 2018)	46
Companies other than holdings, investment companies, financial intermediaries, banks, or leasing companies	49
Companies that changed fiscal year during 2018-2022 or had fiscal year ending other than December	60
Companies with more than six months of trading suspension during 2018-2022	55
Number of companies in the sample	167

This table outlines the systematic process used for sampling from the total population of companies listed on the Tehran Stock Exchange at the end of 2022, resulting in a final sample size of 167 companies meeting the specified criteria. The research model is as follows:

Empirical Research Model:

$$\text{ERMAN} = \beta_0 + \beta_1 \text{ sale RPT}_{i,t} + \beta_2 \text{ Pur RPT}_{i,t} + \beta_3 \text{ Reav RPT}_{i,t} + \beta_4 \text{ DebtRPT}_{i,t} + \beta_5 \text{ Reci Garanty}_{i,t} + \beta_6 \text{ Pay Garanty}_{i,t} + \beta_7 \text{ Rptype}_{i,t} + \beta_8 \text{ ROA}_{i,t} + \beta_9 \text{ Size}_{i,t} + \beta_{10} \text{ Leverage}_{i,t} + \beta_{11} \text{ MTB}_{i,t} + \beta_{12} \text{ Audit Size}_{i,t} + e\epsilon_{i,t}$$

Where:

Sale RPT: Sales to related parties

Pur RPT: Purchases from related parties

Reav RPT: Receivables from related parties

Debt RPT: Debts to related parties

Reci Garanty: Guarantees received from related parties

Pay Garanty: Guarantees provided to related parties

Rptype: Disclosure and existence of transactions with related parties (1 if disclosed, 0 otherwise)

ROA: Return on Assets

Size: Size of the firm

Leverage: Leverage ratio

MTB: Market-to-Book ratio

Audit Size: Size of the auditing firm

IV. Results and Discussion

In this study, initially, a first-order regression model without its pattern was estimated. Since the Durbin-Watson statistic was less than one, indicating autocorrelation in the regression model, all regressions were therefore specified by their own pattern of regression.

Table 2: Results of Model Estimation Using Fixed Effects Method

Variable	Coefficient (B)	Coefficient Value	t-statistic	Significance Level
C	β_0	-0.75392	-7.962412	0.0000
SALERPT	β_1	0.024171	5.987251	0.0000
PURRPT	β_2	0.182522	2.794613	0.0000
REAVRPT	β_3	-0.192252	-3.346217	0.0001
DEBTRPT	β_4	-0.023623	-4.375961	0.0000
RECG	β_5	-0.173825	-3.341932	0.0002
PAYG	β_6	-0.087951	-1.825852	0.0525
ROA	β_8	0.032641	7.875936	0.0000
SIZE	β_9	0.014285	3.123456	0.0002
LEVE	β_{10}	-0.346791	-1.26542	0.1474
MTB	β_{11}	-0.337514	-12.872531	0.0000
AUDITSIZE	β_{12}	-0.283714	-4.795561	0.0000

The results from the regression model using the fixed effects method in Eviews provide valuable insights into the factors influencing ERMAN (presumably a dependent variable related to transactions with related parties) within the context of Iranian stock exchange-listed companies. Let's delve deeper into the interpretation of these results. Firstly, several variables exhibit statistically significant coefficients, indicating their substantial impact on ERMAN. SALERPT (Sales to related parties), PURRPT (Purchases from related parties), REAVRPT (Receivables from related parties), DEBTRPT (Debts to related parties), RECG (Guarantees received from related parties), ROA (Return on Assets), SIZE (Size of the firm), MTB (Market-to-Book ratio), and AUDITSIZE (Size of the auditing firm) all demonstrate significant coefficients with p-values less than 0.05. This suggests that changes in these variables are associated with significant changes in ERMAN. For instance, higher sales and purchases involving related parties, greater receivables and debts owed to related parties, as well as the size of the company and its market-to-book ratio, all play crucial roles in influencing ERMAN. Moreover, the size of the auditing firm also shows significance, implying that the scale or reputation of the auditing entity affects ERMAN in meaningful ways.

Conversely, PAYG (Guarantees provided to related parties) and LEVE (Leverage ratio) do not exhibit statistically significant coefficients (p-values greater than 0.05). This suggests that the level of guarantees provided to the related parties and the leverage ratio of the companies do not significantly impact ERMAN. While these variables may still be relevant in other contexts, their influence on ERMAN in this specific study appears negligible.

The model's overall fit is also assessed through the adjusted R-squared and F-statistic. The adjusted R-squared of 0.282 indicates that approximately 28.2% of the variation in ERMAN can be explained by the independent variables included in the model. This moderate level of explanatory power suggests that while the model captures a significant portion of the variance in ERMAN, there are likely other factors not accounted for in this study. Furthermore, the F-statistic of 3.47953 is statistically significant at a p-value of 0.002211, indicating that the overall regression model is significant. This means that the collective influence of the independent variables on ERMAN is not due to random chance but reflects meaningful relationships captured by the model. Lastly, the Durbin-Watson statistic of 2.14263 indicates a moderate level of positive autocorrelation in the residuals of the model. This autocorrelation should be considered when interpreting the reliability of the model's estimates. It suggests that there may be some pattern in the residuals that the model has not accounted for, which could potentially affect the robustness of the results. In conclusion, the regression results highlight which specific variables related to transactions with related parties significantly impact ERMAN among Iranian listed companies. Understanding these relationships can provide valuable insights for financial managers, accountants, policymakers, and other stakeholders in making informed decisions and formulating effective policies related to related-party transactions and financial transparency.

In summary, the results indicate that sales to and purchases from related parties, return on assets, and company size have a significant positive impact on earnings management. Conversely, receivables from and debts to the related parties, guarantees received, market-to-book ratio, and auditor size have a significant negative impact on earnings management. Variables such as guarantees provided and financial leverage do not have a significant impact on earnings management.

V. Conclusion

The main objective of this research is to investigate the impact of transactions with related parties on earnings management in companies listed on the Tehran Stock Exchange. This objective is pursued through a detailed analysis of the relationships between various transactions with related parties, including sales, purchases, receivables, and debts, and their effects on earnings management. Understanding these relationships can significantly assist managers, investors, and other stakeholders in making informed financial decisions and promoting greater transparency in the capital market. In this regard, data analysis holds

paramount importance, and data collection tools have been meticulously selected to ensure the reliability and scientific validity of the research findings. The research employed a combined approach of library research and field data collection. In the library research method, information related to theoretical foundations and the research background was gathered from books, scholarly articles, and reputable sources. Meanwhile, in the field data collection method, operational and financial data of companies listed on the Tehran Stock Exchange from the period of 2018 to 2022 were systematically gathered. This comprehensive approach not only aims to provide reliable insights into the impact of related party transactions on earnings management but also seeks to contribute to the enhancement of financial decision-making processes and the establishment of greater market transparency.

The data used in this study encompass financial information of companies, including financial statements, annual reports, and data related to transactions with related parties. These data were obtained from reliable sources such as the Securities and Exchange Organization, and the Tehran Stock Exchange website. To analyze the data and investigate the research hypotheses, panel data and advanced statistical methods were employed to ensure that the results provide a comprehensive and accurate picture of the effects of transactions with related parties on earnings management. In terms of temporal perspective, this research is retrospective, focusing on practical outcomes, and employs a quantitative research process. The research is descriptive-survey in terms of its objective and follows an inductive approach in research execution. The methodology involved first collecting data from companies listed on the Tehran Stock Exchange during the period from 2018 to 2022, followed by conducting statistical analyses. The statistical population of the study includes all companies listed on the Tehran Stock Exchange, from which 167 companies were selected as the final sample after applying systematic exclusion criteria. Data required for the study were gathered from two main sources: library sources, which included previous studies, scholarly articles, and relevant books on the research topic, and field sources, which involved extracting financial statements and annual reports of companies. Data collection tools utilized reputable sources such as the Securities and Exchange Organization, the Codal system, and other relevant capital market websites. Statistical and econometric methods were employed for data analysis to precisely examine the relationship between independent and dependent variables. The study began with testing the normality of data and proceeded to use multiple linear regression for hypothesis testing. Additionally, F-tests and chi-square tests were employed to examine fixed and random effects.

The results indicate that these fixed effects are statistically significant, as evidenced by the probability values for the F and chi-square statistics being less than the specified significance level. Furthermore, additional tests were conducted to examine the significance of the coefficients of variables in the regression model. For instance, variables such as Sales to Related Parties (SALERPT), Purchases from Related Parties (PURRPT), and Receivables from Related Parties (REAVRPT), and Payables to Related Parties (DEBTRPT) appear to be significant, as their t-statistics values are much larger than the specified significance threshold.

Based on the hypothesis testing results, it could be concluded that the proposed hypotheses in the study are consistent with the collected data, and the regression model overall is statistically significant and acceptable. This suggests that transactions with related parties indeed have a meaningful impact on earnings management in the context of companies listed on the Tehran Stock Exchange during the period from 2018 to 2022. The robustness of these findings underscores the reliability of the statistical methods employed and the suitability of the data sources used, contributing to a comprehensive understanding of the studied relationships.

Based on the results indicating a significant relationship between transactions with related parties and earnings management, it is recommended that companies adopt dynamic and serious approaches to improve their earnings management and optimize transactions with related parties. One suggestion could be strengthening and enhancing internal control systems to ensure that transactions with related parties comply with relevant laws and regulations, thereby reducing any potential risks. Moreover, increasing transparency and disclosure of financial information related to transactions with related parties can aid in identifying risks and managing them more effectively.

Furthermore, developing policies and approaches to establish fair and proper transaction terms and conditions with related parties can reduce instability and enhance public trust in the company's financial performance. Establishing an organizational culture based on transparency and integrity can also be effective in facilitating earnings management and reducing risks associated with transactions with related parties.

Additionally, considering the results showing a significant relationship between sales to related parties and earnings management, a practical recommendation could focus on improving inventory management processes and implementing measures to mitigate risks associated with sales to related parties. One suggestion could involve creating an efficient and intelligent inventory management system that helps companies improve their sales transactions

with related parties and reduce associated risks. Such a system could incorporate innovative technologies like Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) systems, which enhance inventory processes, supply chain management, and customer relationships.

Moreover, developing joint strategies and contracts with related parties can assist companies in improving transaction terms, pricing, and risk management associated with sales to related parties. Increasing collaboration and effective communication with related parties can also be instrumental in reducing risks and enhancing the profitability of transactions. These strategic initiatives can contribute to more sustainable and transparent business practices, aligning with regulatory requirements and investor expectations in the capital market.

Based on the results of hypothesis testing indicating a significant relationship between receivables from related parties and earnings management, a practical recommendation could be related to improving debt management processes and controlling debts to related parties. One suggestion could be enhancing debt management and control processes. Precise planning and optimal management of debts to related parties, including continuous monitoring, detailed analysis of debts, and offering suitable solutions for control and reduction of debts, can be among the actions that lead to a significant improvement in earnings management and risks associated with debts to related parties. This effective debt management system could include the use of innovative technologies such as ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management) systems. These technologies help companies improve inventory processes, supply chain management, and customer relationships, thereby optimizing their receivables and debts. Furthermore, by establishing this system, companies can achieve a proper balance between profitability and risks related to debts to related parties, which is crucial for improving earnings management and mitigating risks effectively.

Based on the results of hypothesis testing showing a significant relationship between debts to related parties and earnings management, a practical recommendation could be related to improving debt management processes. Given this outcome, one suggestion could focus on reforming and enhancing debt management processes with related parties. Precise planning and effective control of debts to related parties can assist companies in achieving a desirable balance between financial capabilities and risks associated with debts to related parties. To achieve this goal, reforming existing debt management processes, establishing transparent and efficient policies for controlling debts and receivables, and offering solutions to enhance efficiency in financial interactions with related parties could be beneficial steps. These actions

can directly impact improving earnings management and reducing risks associated with debts. Furthermore, considering the results of hypothesis testing indicating a significant relationship between guarantees received from related parties and earnings management, a practical recommendation could be related to improving guarantees management processes. Given this finding, one suggestion could involve focusing on enhancing processes related to managing guarantees received from related parties. Enhancing policies and procedures related to receiving guarantees from related parties, increasing control and oversight over guarantee processes, and establishing suitable mechanisms for evaluating and controlling risks associated with guarantees received can be effective measures. These efforts are likely to significantly impact improving earnings management and reducing financial risks for companies. Improving processes related to guarantees received can help companies enhance their financial management practices, ensure better financial performance, and overall improve their financial health.

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