Journal of Economics, Finance and Accounting Studies (JEFAS)
ISSN: 2709-0809
DOI: 10.32996/jefas
Journal Homepage: www.al-kindipublisher.com/index.php/jefas

JEFAS
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

Investigating the Relationship between Transactions with Affiliates and Fraudulent Reporting by Explaining the Moderating Role of Corporate Governance Companies Listed in Tehran Stock Exchange

Saeed Pakdelan [1], Alireza Azar Brahman [2] and Gholamhossein Heydari Filabadi[3] ✉

[1]*Graduated with a doctorate in accounting from Mazandaran University and an assistant professor in the accounting department of Shandiz non-profit higher education institute, Mashhad, Iran*

[2]*Doctoral student of accounting at Mazandaran University and faculty member of the accounting department of Shandiz non-profit higher education institute, Mashhad, Iran*

[3]*Master's degree in accounting Management Shandiz non-profit higher education institute, Mashhad, Iran*

Corresponding Author: Gholamhossein Heydari Filabadi, **E-mail**: ghhfk8@gmail.com

| ABSTRACT

Transactions with related parties have become a common way for fraudulent reporting due to the hiddenness and simplicity of manipulation, and the traditional methods of quantitative analysis have failed to discover the complex relationships of these transactions. Therefore, the detection of fraudulent reporting has attracted the attention of researchers and legislators. This research seeks to examine and test the relationship between transactions with related parties and fraudulent reporting by explaining the role of corporate governance moderation in companies listed on the Tehran Stock Exchange. The statistical population of this research includes 146 companies admitted to the Tehran Stock Exchange during a period of 9 years from 2012 to 2021. Multiple linear regression method has been used to test the research hypotheses. The results of the research showed that there is a positive and significant relationship between transactions with related parties and fraudulent reporting. In fact, the level of fraudulent reporting is higher in companies with related party transactions and fraudulent reporting. Also, the research results showed that there is a negative and significant relationship between corporate governance and fraudulent reporting. In other words, in companies where corporate governance is observed, the level of fraudulent reporting is lower. Examining the effect of corporate governance indicators on fraudulent reporting using unusual transactions with related parties shows that the independence of the board of directors and institutional shareholders has no significant effect on the relationship between transactions with related parties and fraudulent reporting, but the type of auditor has a direct and significant effect on the relationship between transactions with related parties and fraudulent reporting. Therefore, internal and external auditors, regulatory bodies, board of directors, and other professionals should identify this type of fraud and emphasize the importance of prevention approaches to reduce the possibility of committing corporate fraud. Regulators should also pay more attention to loan-based related party transactions and the total number of related party transactions.

| KEYWORDS

Related party transactions, fraudulent reporting, corporate governance

| ARTICLE INFORMATION

ACCEPTED: 20 November 2022 **PUBLISHED:** 03 December 2022 **DOI:** 10.32996/jefas.2022.4.4.16

1. Introduction

Fraudulent financial reporting undermines trust between companies, auditors, and market participants and threatens the existence and efficiency of capital markets. Hence, the detection of fraudulent financial reporting is of great importance for capital markets. Recently, the widespread impact of fraudulent financial reporting by Lakin Coffee on the US stock market has once again brought financial fraud to the fore. Financial fraud detection can be divided into two categories: the first approach is to prevent fraud by looking for fraud agents. The fraud triangle suggests three components that increase the risk of fraud: opportunity, motivation, and justification. Based on this theory, researchers examine the motivation to commit fraud due to pressure or desire, the chance of fraud resulting from defects in institutional characteristics, and the personal justification resulting from the characteristics of managers or firms. Another approach detects fraud through financial statement data, such as raw financial items, indicators, textual information, and other fraud results. These data-driven approaches often lack the involvement of human intelligence. In other words, most of the existing studies consider firms as independent individuals, which leads to neglecting the interrelationships between firms. However, firms are often located in a complex ecological network. Therefore, related information may play an unexpected role in financial fraud detection. This means that fraud detection may help to improve the efficiency of financial fraud detection (Xuting Mao et al., 2022). Economic and financial crimes include a wide range of illegal activities, including fraud, tax evasion, and money laundering. Most fraudulent activities have occurred in the form of internal fraud in financial institutions. This is the practice of higher and lower managers. The economic theory of crime framework was created by Becker (1968); he believed that if there is a fraud, it is done by the organizational managers. Deficiencies in the corporate governance system can create sufficient opportunity and motivation for fraud in financial statements, which mainly occurs with the knowledge or participation of top management. For example, weaknesses in the system relate to the composition of the board of directors, the audit committee, external auditors, and incentive-based rewards for managers. Abuse of the financial system has negative consequences for a country's macroeconomic performance, imposes welfare losses, and may also have negative cross-border externalities. It can also directly or indirectly affect and change the way resources are allocated, and wealth is distributed in a country. Due to globalization, diversification of financial markets, and technological advancement, the opportunities for these crimes have increased. There are some fraudulent activities in the market where many people lose their savings, security, well-being, physical health, and relationships. Fraud is done because of weak corporate governance, and among the three components of corporate governance, the type of auditor is considered the most important tool to reduce fraud. Intensification of corporate governance, as well as internal control and the application of securities laws, increases the possibility of preventing fraud (Abdul Rashid et al., 2022). Frauds of financial statements have attracted the attention of the general public, the media, financial community investors, and legislators, and this is due to several famous frauds that have occurred in large companies such as Lucent over the past years. Have given. Fraudulent reporting in financial statements is mostly done through the overstatement of assets, sales, and profits and the understatement of liabilities, expenses, and losses. The publication of information that is not true and shows the financial and operational facts of the company in a false way is caused by the desire of the management to hide and conceal the truth, which can be in line with the deviation of the decisions of the users and also in order to achieve goals that are It is not in the interest of all stakeholders. Therefore, the users of financial reports should always analyze the possibility of fraudulent reporting in financial statements and published financial reports of the company through evaluating financial statements, following news and events related to the company, etc., in order to be able to quality information. Explain what is included in the financial reports (Falah Hamidi et al., 2022). The Asian financial crisis has led many countries to engage in related party transactions, often by controlling shareholders. The emergence of related party transactions cannot be separated from the existence of pyramidal ownership because the controlling shareholder has several layers of ownership. Just as related party transactions can create conflicts of interest between the controller and the minority, the controller may also transfer corporate resources or assets to the parent entity, which is usually not listed on a stock exchange (Mehrbanpour and Nourizadeh, 2019). Considering the strong theoretical foundations and research background, in this research, we examine the relationship between transactions with related parties and fraudulent reporting, as well as the moderating role of corporate governance on the aforementioned relationship.

2. Literature Review

This section is dedicated to the significant literature resources that contributed to the research. The author should survey scholarly articles, books, and other sources relevant to the area of research, providing a description, summary, and critical evaluation of each work. In recent years, fraud in financial reporting has grown significantly. For this reason, organizations must constantly strive to prevent and detect fraud. According to the report of official fraud inspectors (2018), types of fraud are classified into three forms: misappropriation of assets, financial corruption, and fraud in financial statements. Meanwhile, fraudulent financial reporting, although less common than other forms of fraud, is the most expensive type of fraud in terms of costs imposed on companies. For the following reasons, it is relatively difficult to detect management fraud using the usual auditing methods: 1. lack of sufficient knowledge about the characteristics of management fraud, 2. lack of necessary and sufficient experience of most auditors to detect fraud, and 3. trivializing the work. Audited by most financial managers and accountants. For such managers who are aware of these audit limitations, standard audit procedures may not be sufficient. Therefore, for the effective discovery of fraudulent financial statements, the need for additional analytical methods is unavoidable. During the last decade, although data mining methods have been successfully used to detect frauds such as money laundering, e-commerce credit card fraud, and fraud in insurance organizations, however, due to the complex nature of fraudulent financial reporting, its detection and identification It is also complicated and difficult. Because auditing methods are not designed to detect fraud in financial statements, they have numerous shortcomings in detecting this type of fraud. Although from an ethical point of view, the manager is responsible for discovering financial fraud data in an organization, in reality, most of the frauds in financial statements are done with the knowledge or consent of the management. Importantly, any failure to detect fraudulent financial reporting can seriously damage the reputation of the auditing profession. Also, audit procedures should be done in a timely manner in order to prevent the occurrence of fraud in financial statements and its ever-increasing increase. New techniques, such as data mining, which has advanced classification and predictive capabilities, can be used to facilitate the role of auditors in terms of successfully detecting fraud. Audit procedures should be done in a timely manner to prevent the occurrence of fraud in financial statements and its increasing rate. New techniques, such as data-mining, which has advanced classification and predictive capabilities, can be used to facilitate the role of auditors in terms of successfully detecting fraud. In Iran, in recent years, fraud has been the dominant debate in financial markets and economic enterprises. Iran's financial crisis that occurred in the years 2010-2017 and was accompanied by a sharp decline in the value of the Rial has had negative consequences, including affecting the business environment of the society and limiting the available financial resources. A clear example of financial fraud in recent years is the extensive corruption case of Capital Bank amounting to 14 thousand billion tomans, which is referred to as financial corruption and has a direct and indirect impact on the domestic financial markets. Although official fraud statistics are not provided in Iran, according to the statistics of Transparency International, in 2019, Iran ranked 146th among 180 countries with a score of 27. Anticipation of fraud in financial statements can prevent the imposition of high costs, the reduction of the company's credit, and, as a result, the increase of risk and market inefficiency. Therefore, the main necessity is to raise the level of awareness of auditors, supervisory institutions, and investors in this field (Melki Kockler et al., 2021). Therefore, effective and responsible corporate governance, along with "anti-fraud policies and programs" that rely on the internal audit function, can greatly reduce the process of committing fraud. Corporate governance mechanisms such as the board of directors and concentration of ownership is an effective ways to reduce the possibility of committing accounting fraud and ensure the effectiveness and relevance of financial information of companies. The characteristics of the board of directors are related to vigilance, their ability to monitor management and create an effective corporate environment that fosters superior and managerial attitudes. It can also be said that the role of experience and training in external audits and internal audit is also important in reducing the probability of committing fraud (Abdul Rashid et al., 2022). In our country, due to the increase in the number and size of joint-stock companies, as well as the increase in the number of users of accounting information, financial and accounting professions must continuously increase the quality of their work in accordance with the expectations of shareholders (Khalili Samrin et al., 2021). Related party transactions have played a central role in recent high-profile accounting scandals. These transactions are known as one of the biggest causes of the downfall of many large companies in the United States, Italy, and the United Kingdom. Based on the "agency" or "efficient transaction" hypothesis, related party transactions between companies with good corporate governance mechanisms are appropriate business transactions and meet the specific needs of the company. However, the "tunneling" or "conflict of interest hypothesis" assumes that related party transactions can be done in the interests of insiders, such as executives and controlling shareholders, to capture the wealth of outside investors. Because related party transactions are transactions with insiders and are considered difficult to audit, aggressive accounting practices can be performed through related party transactions. Although these cases lead to deterioration of the quality of financial reporting. Due to the severe economic sanctions against the Iranian market in recent years, most Iranian companies are facing the most severe financial problems and are at risk of bankruptcy. In times of financial collapse, companies seek to manipulate financial information and mislead shareholders about their actual performance. In addition, transactions with related parties are sometimes made to acquire the related party's unique experience, expertise, and skills or to compensate for services. However, in some cases, the motive behind the transaction with a related party is to remove the company's assets for the benefit of the affiliated companies, and the manager engages in profit management and fraudulent reporting to cover it up. In order to restore the lost trust of various groups in the financial statements of companies, corporate governance laws entered the field of anti-corruption, and the Sarbanes-Oxley Act in 2002 (Corporate Governance) was approved as an appropriate response to corporate financial scandals in America. And part 402 of this law has reviewed the provisions of disclosure of transactions with related parties. While obtaining corporate resources through affiliate transactions is common in developed countries, this phenomenon is more prevalent in emerging economies due to weak corporate governance. From the perspective of regulators, standard setters, investors, and other stakeholders, related party transactions can be a deadly factor for companies to survive in today's competitive world. Contrary to the "efficient transactions" approach, it states that transactions with related parties can be an effective tool for improving company performance. The "tunneling" or "conflict-of-interest transaction hypothesis" argues that transactions with related parties may undermine the firm because they abuse the firm's resources due to existing conflicting interests (Tarighi et al., 2021). Therefore, considering the importance and significant costs of financial fraud, this research has been conducted to reduce fraudulent financial reporting by using the components of the corporate governance system in Tehran Stock Exchange companies.

Xuting Mao et al. (2022), in research entitled investigating the relationship between transactions with related parties and fraudulent reporting. In this paper, a Review of Chinese listed companies from 2000 to 2019 shows that these features have enhanced financial fraud detection performance and suggests that the type, size, and frequency of related party transactions may indicate fraudulent reporting (fraud). In more detail, the importance of the feature suggests that regulators should pay more attention to loan-based related party transactions and the total number of related party transactions. Tarighi et al. (2022), in research, investigated the effect of financial distress risk and transactions with related parties on the quality of financial reporting. The results of the research showed that companies that are in financial trouble have lower financial reporting quality because they try to mislead other shareholders about the real performance of the company to attract more investors and lenders. The research findings confirm that there is a positive relationship between related party transactions through loan-based and accrual profit management. In other words, managers engage in related party transactions to seize corporate resources and then manipulate financial statements to conceal such seizure. Finally, the quality of financial reporting is seen well among companies with higher sales growth and more institutional owners, while the variables of return and financial leverage have a negative effect on the quality of financial information. Sabmiter et al. (2021) investigated the relationship between the life of the board of directors and the possibility of financial fraud and found that the board of directors with a longer tenure has more motivation and ability to prevent and reduce financial violations in companies. Sijabat et al. (2021), in research in the management analysis section, analyzed the reports of the companies and found that the tone of the suspected fraud reports is significantly far from the standard mode and Fraudulently closer. For example, in the reports that were suspected of fraud, the managers spoke less about the details of the company's performance and tried to explain more about the positive points of their performance, and in this regard, they did not reveal much detail to the company's management team. Maleki Kakler et al. (2022) investigated the effectiveness of statistical models and machine learning patterns in predicting fraudulent financial reporting. In this research, a variety of statistical models and machine learning in achieving a high-performance model in predicting fraudulent financial reporting from 20 variables, including (transactions with related parties, institutional shareholders, independence of the board of directors, auditing firm, etc.) in the form The pentagonal model of fraud with emphasis on the structure of internal controls was used in 166 companies active in the Tehran Stock Exchange during the years 2009 to 2017 and the comparison between the investigated models, with the help of the ratio comparison test, shows that in terms of Statistical machine learning models are more efficient and accurate in predicting fraudulent financial reporting than statistical models. The results of the research showed that there is a direct and significant relationship between transactions with related parties, institutional shareholders, Independence of the board of directors, audit institute, and fraudulent reporting. Hijazizadeh (2020) used in researching the impact of audit failure information complexity on the fraud of the Tehran Stock Exchange and Securities companies in the period from 2011 to 2018, and the results of logit regression equations showed the existence of significant relationships between the complexity of information resulting from transactions with related parties and audit failure has shown results of the second hypothesis have shown the existence of significant relationships between information complexity caused by product diversity and audit failure. Lee & colleagues (2020) stated in research that although corporate governance alone is not enough to accurately predict financial turmoil, or in other words, the instability of a company's performance and the existence of its bankruptcy risk, it can influence the power of predicting financial ratios and factors. Macroeconomics will increase. Therefore, increasing the quality of corporate governance will increase the predictability of the company's performance (yield) or will cause the stability of a company's performance. One of the important methods of supervision in the first stage is to supervise the actions of the members of the board of directors of the company, who are responsible for the appointment, promotion, and replacement of the representatives. The independence of the board members is also an effective factor in reducing the volatility of the company's performance. Nikbakht et al. (2019), in research entitled the impact of board of directors characteristics on company performance stated that the size of the board of directors, the proportion of non-executive members in the composition of the board of directors, the number of board meetings, the financial knowledge of board members and the separation of the role of the CEO from the chairman of the board of directors. It affects the performance of the company. The results of the research showed that the board of directors is in a symbolic position in the Iranian capital market, and they do not perform their duties in order to reduce representation problems and improve the company's performance. In research, Hong & Cheng (2018) investigated the effect of information complexity and defects in auditing caused by fraud in the company, and this research investigated the relationship between transactions with related parties and the level of diversity and secrecy of the auditor caused by fraud in the company and companies. The sample was collected manually through a list of fraudulent audit firms that were found guilty of corporate fraud under the Securities and Exchange Act and the Public Accounting Act published between 1992 and 2010. The results of this research showed that increasing the complexity of the company's information by increasing the amount of money collected from transactions with related parties, especially the transactions related to the person or the income-based sector, increases the probability of concealment in the audit. In addition, as the variety of complex products increases, the possibility of concealment or fraud in the audit increases. Yanhang et al. (2017), in research, identified the factors of fraud in financial reporting and their ranking using the AHP technique, and by reviewing previous studies in this field as well as the opinions of various experts, they investigated the different factors of fraud, and the results showed that the most important The factor in the occurrence of fraud is motivated pressure and the least important factor is attitude or rationality. In addition, 5 other important factors in the occurrence of fraud are; poor performance, the need for external financing, financial crisis, insufficient board supervision, and competition or market saturation. Balsam et al. (2017), in research titled transactions with related parties, corporate governance, and managers' compensation, investigated the relationship between these variables, and the research results showed that there is a positive and significant relationship between transactions with related parties and managers' compensation. Also, the findings showed that corporate governance criteria, including ownership concentration, moderate this relationship. Chen et al. (2017), in research, investigated the effect of the ratio of shares held by the controlling shareholder on underground activities, and the results showed that the ratio of shares held by the controlling shareholder in the transfer of control, especially through underground activities, leads to Creating a problem is represented. In research, Vidari et al. (2016) investigated the market's reaction to the disclosure of information related to transactions with related parties, and the statistical sample included 409 Indonesian stock exchange companies. The results of the investigation showed that the information disclosed by these companies lacked informational content, and for this reason, the market did not react to the disclosure of such information. Darzi Ramandi (2017) in research investigated the effect of the quality of fraudulent financial reporting on the risk of falling stock prices, emphasizing managerial ownership, and the research results showed that the quality of fraudulent financial reporting does not have a significant effect on the risk of falling stock prices. In addition, managerial ownership does not have a significant effect on the relationship between the quality of fraudulent financial reporting and the risk of falling stock prices. Basli (2016), in research, titled board of directors characteristics, ownership structure and audit report delay from companies in 11 Arab countries from 2009 to 2013 investigated the effect of board characteristics and ownership structure on audit report delay and the results of the research show It is that a high percentage of companies have less than 60 days delay in their audit reports, and they have been audited by auditors who are members of four major auditing companies. Also, the results showed that CEO duality, the board size, board independence, the concentration of ownership, institutional ownership, foreign ownership, type of auditor, return on assets, and age of the company have a significant effect on the delay of the audit report. Crist & Falset (2016), in research, investigated the topic entitled empowering the audit committee and auditors in dealings with related parties, and this research suggests that the duty of external auditors can be developed to the extent that transactions with related parties are reasonable. Be also assured activities related to transactions with related parties can be included in the scope of the audit committee's supervisory duties, and transactions with related parties can be done with the approval of the audit committee. These methods can help reduce the negative effects of these transactions. Etemadi & Abdoli (2016), in research titled identifying the prioritization of fraud methods in financial statements from the point of view of auditors, reached a conclusion that among the fraud methods in financial statements are manipulation of profit, insufficient disclosure, intentional omission of debts and expenses. , exaggeration of income and assets, and concealment of transactions are ranked first to fifth, respectively, and from the point of view of auditors, it is most commonly used in the country's financial statements for fraud. Shabani (2016), in research entitled the effect of auditor's size and expertise on the probability of fraud in financial statements, showed that there is no significant relationship between the auditor's expertise in the industry and the size of the audit firm with the probability of fraud. But the results of the research showed that there is a positive and significant relationship between the length of the operating cycle of companies and financial fraud. Hijazi & Mokhtari (2016) investigated the relationship between corporate governance structure and the possibility of fraudulent reporting, and the results of the research showed that there is an inverse relationship between the expertise of the board members, the effectiveness of the audit committee, and the effectiveness of the independent non-executive members of the board of directors with the possibility of fraudulent reporting. That is, an effective corporate governance structure reduces the possibility of fraudulent reporting and increases the credibility of financial reporting. Inirat (2015) investigated the role of three main components of corporate governance (internal audit, internal control, and independent auditor) in reducing fraud. The results of the regression analysis showed that among the three components of corporate governance, internal audit was an important factor in reducing the level of fraud. Research on the (existence, implementation, and effectiveness) of corporate governance components showed that the effectiveness dimension has the greatest impact in reducing the level of fraud. In research, Wang et al. (2015) investigated the decrease or increase in sales value in transactions with related parties between similar business groups and found that such transactions increase the value of companies, except for companies that have state ownership and have There are many high-ranking managers with tax evasion motives. They also found out that people using information rents to limit the value of shares are minority shareholders. They also stated that there is a reciprocal and inverse relationship between ownership structure and tax evasions with transactions of related parties. In research, Hamidullah & Atashahaullah (2015) examined the relationship between transactions with related parties and corporate governance mechanisms, and the results of the research showed that the independence of the board of directors and institutional ownership plays a vital role in relation to the internal mechanisms of corporate governance. While the ownership of the company, the dual role of the CEO and managerial ownership lead to the expropriation of partial shareholders through transactions with related parties. The results of the background of external research showed that the relationship of transactions with related parties is not the same with different corporate governance mechanisms. In general, the results of transactions with related parties and corporate governance mechanisms show that corporate governance mechanisms have a significant impact and play a vital role in the relationship with related parties. Albrecht et al. (2015) investigated the effect of power on fraudulent reporting. They used French and Ravan's power classification model to show how to use power to attract other people's participation in the process of fraudulent reporting. The results of the research showed that Person A calls Person B to participate in fraud by using enticement, threat, legal power, professional skill, and justification. Sajjadi et al. (2015), in research, titled the comprehensive model of fraudulent financial reporting in Iran by theorizing method, aim to combine qualitative research methods, using the theorizing approach of foundation context and analysis of documents and documents, in order to provide the ultimate model of the society of fraud in financial statements in the cultural, economic and legal framework of the country. After obtaining the opinion of experts and carefully studying documents, documents and reports, the pressure factor was recognized as the main condition of fraudulent financial reporting. The results of the research show that managers' reward motivation, asset misuse motivation, political costs, tax purposes, and company acquisition by managers are also effective in fraudulent financial reporting. Fraud schemes in financial reporting are born in the context of public culture, legal system, and accounting standard of the country as background conditions and corporate governance system, internal control, and audit quality as intervening conditions. Rosali & Arshad (2014) investigated the relationship between the disclosure of the corporate governance structure and the possibility of fraudulent reporting, and the results showed that there is a significant relationship between the effectiveness of the audit committee, the effectiveness of the internal audit, and the effectiveness of independent non-commissioned members of the board of directors with the possibility of fraudulent reporting. But there is no relationship between board size and the international experience of board members with the possibility of fraudulent reporting. Also, there is a relationship between company size and financial leverage with the likelihood of fraudulent reporting. Lisik et al. (2014) investigated the effect of auditors on accounting fraud and found that companies audited by large audit firms have a lower tendency to commit financial statement fraud. This effect is more severe for income related frauds. Mohammad & Schachler (2014), in research through interviews with managers, auditors, and legislators, investigated the potential methods of combating, discovering, and interacting with fraud in financial statements. The research results emphasize the importance of developing internal control systems in the prevention and detection of fraudulent financial reporting. Kong et al. (2014) investigated whether transactions with related parties are used as a mechanism to abuse the company's facilities or not. The results showed that transactions with related parties when the agency problem is serious; happened, and in fact, it is a factor in the misuse of the company's facilities and destroys the value of the company. Chen & Sood (2010) investigated the relationship between transactions with related parties and company performance and whether corporate governance has a positive effect on the relationship between transactions with related parties and company performance. , have used the criterion of independence of the board of directors. The results of the research showed that corporate governance mechanisms change these transactions from opportunistic transactions to effective transactions, and the independence of the board of directors plays a moderating role in these transactions. In research, Cheng et al. (2009) examined the pricing of assets in transactions between related parties in 2000 companies during the period from 1998 to 2000, and their results indicated that companies with related parties compared to Real transactions are entered into at an improper price, and companies acquire assets from related parties at a higher price compared to similar real transactions, and when they sell assets to related parties, they pay a lower price than Receive similar deals. Companies with an audit committee charge a lower price to related parties for study and payment and a higher price from related parties. The Organization for Economic Cooperation and Development (2009), by publishing a guideline for monitoring and limiting these transactions with a focus on the disclosure and approval of transactions by shareholders and board members, has put solutions in front of regulators, shareholders, and other stakeholders, and has given the role of auditors He has also commented and presented a special approach for analyzing transactions with related parties and estimating the potential of abuse of these transactions. Henry et al. (2007), in research, in addition to the purchase and sale of goods, the purchase and sale of assets between related parties have also been used for profit management and fraudulent financial reporting. They investigated the role of transactions with related parties in fraudulent financial reporting using financial information and found that the most frequent types of transactions in executive activities are loan payments to related parties, payments to the company's board of directors, and sales of goods and services to individuals. Have been related that the existence of the relationship has not been disclosed. Also, their results showed that embezzlement of company assets is often related to transactions with high cash flow. They reported that, in general, the existence of transactions with related parties does not necessarily indicate fraudulent financial reporting. Klebek & Mayhew (2004) showed in research that due to the fact that transactions with related parties increase the risk of losses for the beneficiaries, there is a need to monitor these transactions, and the monitoring prevents the exit of wealth from the company by related parties or reporting. It is fraudulent that this is realized by adopting corporate governance mechanisms. American Institute of Certified Public Accountants (AICPA) (2001), in a statement entitled "Accounting and Auditing of Related Parties and Transactions with Related Parties", stated three reasons for the difficulty of auditing related parties and transactions with related parties: 1. These transactions are not easily identifiable 2. In the first step, the auditor relies on the director and the controlling shareholder to identify related parties and transactions with related parties 3. These transactions cannot be easily detected by the company's internal controls, and since the default of the standard-setting institutions is that transactions with related parties are not conducted under fair conditions, these transactions are controlled and monitored through disclosure.

3. Methodology

This research is classified based on the purpose of applied research. The purpose of applied research is to develop applied knowledge in a specific field. Also, applied research is directed toward the practical application of knowledge. The current research, in terms of classification based on the purpose, describes and interprets existing conditions and relationships in order to provide a complete expression and definition of it or its difference from other phenomena, and in terms of method and nature, it is both library and field method. It is used in all scientific research, and in some of them, the subject of the research in terms of method, from the beginning to the end, relies on the findings of the library research, where the researcher examines the printed materials by referring to the available books and publications, and summarizes the results. It gets the content. In the field method, the researcher lives for some time among the community he is researching and conducts research on a specific issue in that environment. The researcher does not manipulate the environment and does not interfere with the natural flow of events. In field research, observation is the main element. In other words, the meaning of field studies is research that the subject of study is at the disposal of the researcher and has access to it. The current research is fundamental in terms of its purpose. In terms of the inference method, this research is descriptive-analytical. Descriptive research describes and interprets what is without interference. This type of research includes collecting information in order to test hypotheses or answer questions related to the current state of the subject under study. In terms of the type of research design, the current research is post-event research. In this type of research, the goal is to examine the existing relationships between variables, and data is collected and analyzed from the environment that existed naturally or from past events that occurred without the direct intervention of the researcher. The statistical method for data analysis is affected by the research method, and since the current research method is based on correlational research, therefore, regression analysis will be used to test the research hypotheses, which is used to estimate the prediction of relationships between variables. A wide Multiple regression analysis will be performed using combined data. Data analysis is also done using word software, Excel, and Eviuse. The time period of this research is between 2013 and 2021. In terms of the hypothesis testing model, the present research is considered correlational research. The relationship between the independent and dependent variables of the research is investigated using a multivariate linear regression model. Descriptive statistics (including mean, average, standard deviation, skewness, etc.) and inferential statistics (correlation coefficient, multivariate linear regression model) will be used for statistical analysis of data and testing of hypotheses of this research. In this research, Limer's F test is used to check whether joint effects or fixed effects are used in model estimation. Also, to check whether the estimation of the model with fixed effects or random effects is suitable, the Hausman test will be used. The collected data are modified and classified using Excel software and entered into the software based on the studied variables; then, the final analysis is done with the help of Eviewse 10 software.

3-1. Variables Measurement Pattern:

3-1-1. Dependent Variable:

Fraudulent reporting is estimated according to Sajjadi & Kazemi's research (2015) based on the clauses of audit reports in each of the following cases: Fake sales, long-term contracts, conditional sales, sales to intermediaries, sales and repurchases, misrepresentations of accounts receivable, misrepresentations of goods inventories, registration of fictitious assets, fraud in revaluations, obstruction Depreciation of assets, recognition of research and development costs as assets, the inclusion of costs in the cost of assets, distortion of consumption costs, failure to record liabilities or costs, overestimating the company's capital expenditures, understatement or Exaggeration of goodwill, non-disclosure of potential liabilities, accounting changes and incorrect classification (Sajadi & Kazemi, 2015). Then, the variable of fraudulent reporting is formed based on the fictitious variable in such a way that if any of the above items are included in the auditor's report in the desired year, the number is 1; otherwise, 0 is meant.

3-1-2. Independent variable:

Correspondence with the research of Xuting Mao (2022), Hook & Chek (2018), Avon & Il (2013), Hamidi & Sheari (2012), Benafi et al. (2015), including (purchase of goods and services from related parties + sale of goods and services to related parties) disclosed in the notes accompanying the annual financial statements of the companies under review.

3-1-3. Moderator variable:

In this research, corporate governance through three of the following mechanism has been determined in accordance with the research of Maleki Kockler et al. (2022):

A) Independence of the Board of Directors (BIND):

It is equal to the ratio of the number of non-commissioned members to the total number of board members. The independence of the board of directors leads to effective monitoring of the company, the high percentage of independent directors on the board of directors reduces the separation of the interests of shareholders and management, and supervisory and advisory activities are carried out effectively, and management performance is improved (Andres et al., 2005). Board independence has an important effect on reducing agency costs and improving company performance (McKnight and Mira, 2003). A non-obligatory member of the board of directors is a member who does not have executive responsibility in the company.

B) Institutional Shareholders (INST):

It is equal to the ratio of the number of shares in the hands of legal entities to the total number of shares. Institutional shareholders are important. The most important cases are the corporate governance system because they are the capital providers of the company, and maintaining their trust is very important. By electing the company's board of directors, the shareholders indirectly play a role in the company's decisions. Also, institutional and major shareholders can be effective in reducing agency costs by choosing a board of directors.

C) Auditor Type (A_TYPE):

It is an imaginary variable, and it means 1 for auditing organizations and 0 for other institutions to be complete. Audit institutions can be divided into large (4 large) and non-large institutions. In Iran, according to Note 2, Article 10 of the Guidelines for Certified

Audit Institutions of the Stock Exchange Organization approved in 1386, audit institutions responsible for auditing work are not allowed to accept the position of independent auditors and legal inspectors subject to the guidelines again after four years. Based on the studies conducted, quality audit institutions have better supervision, and quality audit results are produced because they have more reputation and face more legal risks, they invest heavily in auditor training and facilitating programs, and they have a large portfolio of clients.

3-1-4. Control variables:
The control variables were determined as follows and according to the research of Maleki Kakler et al. (2022) which has been:

1) Size of the company ($SIZE_{it}$):
It is equal to the natural logarithm of the total assets.

2) Rate of return on assets (ROA_{it}):
It is equal to the ratio of net profit to total assets.

3) Net sales growth ($GROWTH_{it}$):
It is equal to net sales at the end of the period minus net sales at the beginning of the period.

4) Financial Leverage (LEV_{it}):
It is equal to total liabilities divided by total assets.

5) Liquidity (current ratio) of the company (LIQ_{it}):
It is equal to the ratio of current assets to current liabilities.

6) Market value to book value of the company (BTM_{it}):
It is equal to the ratio of market value to the book value of equity.

7) Q $TOBIN$ Co. ($TOBIN\_Q_{it}$):
It is equal to the ratio of market value to the book value of assets.

3-1-5. Conceptual model of research:

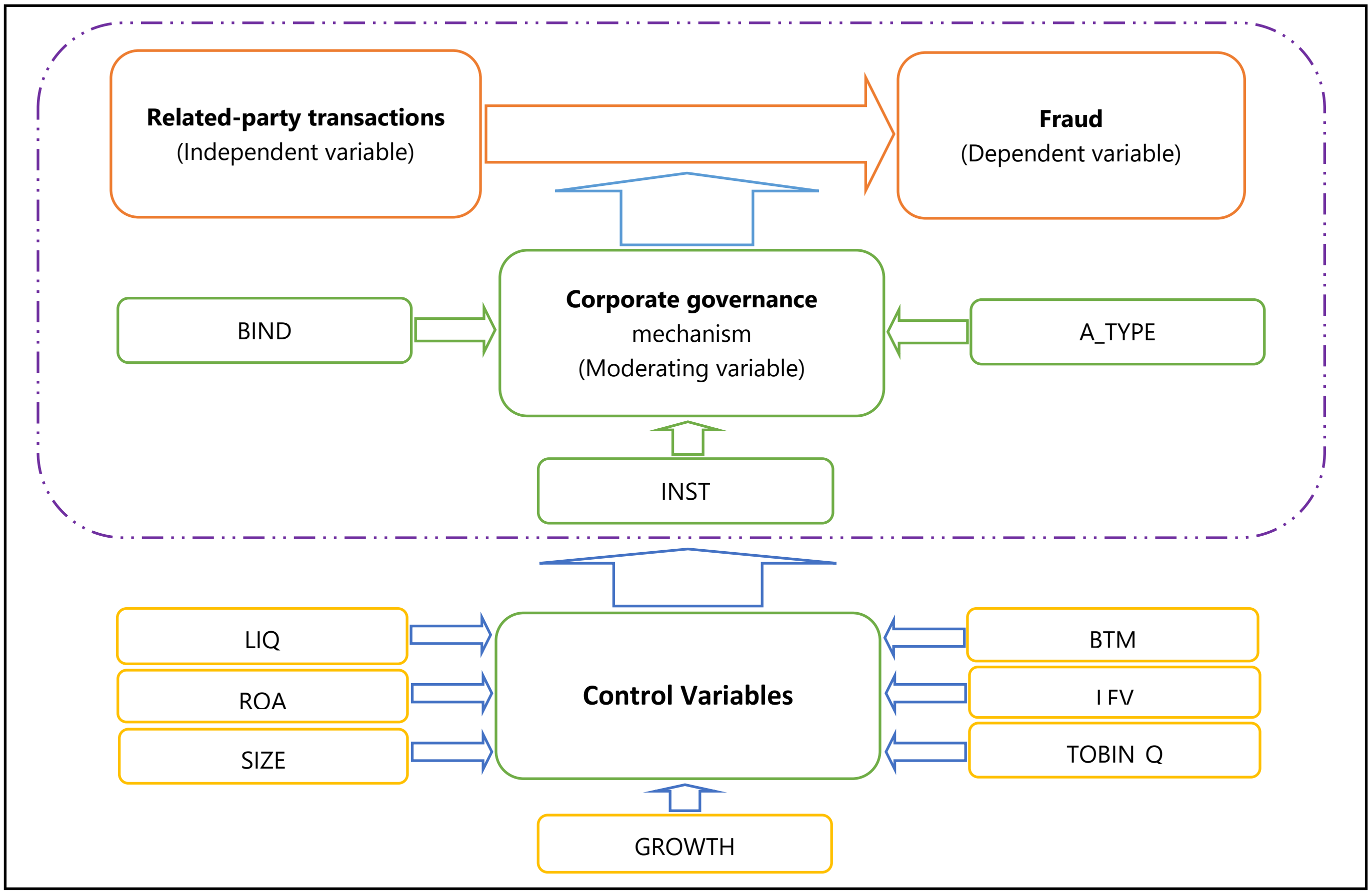


Figure (1) conceptual model of research

3-1-6. Hypothesis testing model:

A) Statistical population and sample:

In this research, in order for the statistical sample to be a suitable representative of the desired statistical population, the systematic elimination method was used, and for this purpose, the following four criteria were considered, and If a company met all the criteria, it was considered as a sample. Research is selected, and the rest is removed. To select a homogeneous sample, I have been accepted in the Tehran Stock Exchange before 2012 and be active in the stock exchange until the end of 2021.

1) In terms of increasing comparability, the company has not changed its type of activity during the period from 2012 to 2021 financial year.
2) In terms of separate reporting structure The company Investments and financial mediation (leasing Yes, insurance, holding and the bank and financial institutions) are removed from the sample become
3) The company should not have a break of more than 6 months and be active during the period.
4) Financial information of the company is available.

After considering all the above criteria, the number of 146 companies remained as the screened society, all of which are selected as samples whose results are shown in table (1). Therefore, our observations during the period of 1391 to 1399 to 1314–Company (9 years × 146 companies) May arrive.

Table (1) Number of sample companies

Description	Number
The total number of companies admitted to the stock exchange at the end of 2021	623
Research criteria:	
The number of companies that were not active in the stock market during the period 2012-2021	(239)
The number of companies that have been admitted to the stock market since 2012	(94)
The number of companies except holding, capital put, mediator Gary Finances, banks and leasing have been are	(60)
The number of companies that have changed financial year in the time period of the research	(29)
The number of companies that have had a trading break of more than 6 months	(40)
The number of companies whose information is not available in the time period of the research	(15)
The number of research sample companies	146

B) First hypothesis test model:

To test the first hypothesis, the following model was used according to the research of Xuting Mao (2022):

$$\boldsymbol{Fraud_{it} = \alpha_0 + \alpha_1 RPT_{it} + \alpha_2 BInd_{it} + \alpha_3 Inst_{it} + \alpha_4 A\_Type_{it} + \sum_{k} \alpha_k \sum_{it}^{k} CONTROL_{it}^{k} + \varepsilon_{it}}$$

C) The second hypothesis test model:

To test the second hypothesis, the following model was used according to the research of Xuting Mao (2022):

$$\boldsymbol{Fraud_{it} = \alpha_0 + \alpha_1 RPT_{it} + \alpha_2 BInd_{it} + \alpha_3 Inst_{it} + \alpha_4 A\_Type_{it} + \alpha_5 RPT * BInd_{it} + \alpha_6 RPT * Inst_{it} + \alpha_7 RPT * A\_Type_{it} + \sum_{k} \alpha_k \sum_{it}^{k} CONTROL_{it}^{k} + \varepsilon_{it}}$$

Table (2) definition of the variables of the first and second hypothesis model

variable symbol	Variable type				Variable name	calculation method
	Dependent	Independent	equalizer	Control		
FRAUD	✓				Fraudulent reporting	It is calculated based on the paragraphs of the audit report
RPT		✓			Related-party transactions	Number of contracts and related-party transactions
BIND			✓		Independence of the board of directors	The ratio of the number of non-commissioned members in the board of directors to the total number of members of the board of directors
INST			✓		Institutional shareholders	The ratio of the number of shares in the hands of legal entities to the total number of shares
A_TYPE			✓		Type of audit firm	It is an imaginary variable 1 for auditing organizations and 0 for others

RPT*BIND			✓		RPT and BIND multiplication	
RPT*INST			✓		RPT and INST multiplication	
RPT*A_TYPE			✓		RPT and A_TYPE multiplication	
ROA				✓	Company performance	The ratio of net profit to total assets
SIZE				✓	size of the company	The natural logarithm of total assets
GROWTH				✓	Sales growth	Net sales at the end of the period minus net sales at the beginning of the period
LEV				✓	Corporate leverage	Total liabilities divided by total assets
BTM				✓	Market value to book value	Value ratio. market at the book value of equity
LIQ				✓	liquidity (current ratio)	The ratio of current assets to current liabilities of the company
TOBIN_Q				✓	Q Tobin	Ratio of market value to book value of assets

3-1-7. Data analysis:

A) Descriptive statistics and variables:

Descriptive statistics includes a set of methods used to collect, summarize, classify and describe numerical facts. In fact, this type of analysis describes the research data and information and provides a general design or pattern of data for quick and better use of them. Descriptive statistics show information about central parameters and the dispersion of research data. In summary, with the appropriate use of descriptive statistics, the characteristics of a group of information can be expressed, and in addition to better understanding the results of a test, it also facilitates the comparison of the results of that test with other tests and observations. The descriptive statistics of the research for the sample companies are presented in Table No. (3) Considering that the number of sample partnerships of 146 Companies was examined in 9 years during 2012-2021, the number of observations in the panel data is 1314 cases. The descriptive statistics of the main variables of the model using E views software are as follows:

Table (3) statistics Descriptive variables

variables	Fraud	RPT	Bind	Inst	A_Type	Size
average	0.509893	11.80345	0.300861	0.640100	0.168074	14.20371
mean	.000000	11.91988	0.200000	.684600	0.000000	14.07222
max	1.000000	13.90626	1.000000	0.794500	1.000000	19.77805
mix	0.000000	8.526339	0.000000	0.021800	0.000000	10.16654
Std. Dev	0.500092	1.005004	0.331176	.187189	0.374075	1.518788
variables	**LEV**	**ROA**	**BTM**	**LIQ**	**Tobin_Q**	**growth**
Average	.595742	0.165340	0.484132	.912932	2.332022	0.074200
Mean	.603995	0.076842	0.414578	.017826	1.509475	0.005473
Maximum	.623169	14.57937	4.038361	.780341	45.76945	6.555058
Minimum	.012734	-3.808639	-7.202600	.477121	0.580958	-0.825557
Std. Deviation	.233261	0.650733	0.608189	.858466	2.996078	0.316221

Source: Output of E views software

Table (4) shows the descriptive statistics of research variables. The most important central index is the mean, which represents the balance point and the center of gravity of the distribution and is a suitable index to show the centrality of the data. Another descriptive parameter is the standard deviation, which indicates the dispersion of the data. Also, the minimum and maximum parameters in the above table show the range of data changes. The midpoint shows the middle point of the data, in which half of the data are smaller than it, and the other half is larger than it. As can be seen in the above table, mean, median, highest value, lowest value, and standard deviation are listed for each of the research variables. The standard deviation is the average of the squared distance of each data from the mean and is an index to show dispersion, and considering that its value is not zero for the variables, all the variables can be included in the model.

B) Unit root test (Manai check):

Significance is one of the prerequisites for estimating a suitable regression model. Therefore, the Manai test or unit root test is performed for model variables, respectively. The results using E views software and Levin, Lin, and Chow's unit root test are as follows:

Table (4) results of unit root test for research variables

Variable name	value statistic	probability value	result
Fraud	-9/06033	0.0000	Mana's confirmation
RPT	-30/2182	0.0000	Mana's confirmation
Bind	-2/42676	0.0076	Mana's confirmation
Inst	-39/2674	0.0000	Mana's confirmation
A_TYPE	-2/53216	0.0057	Mana's confirmation
Size	-24/2170	0.0000	Mana's confirmation
Lev	-18/4450	0.0000	Mana's confirmation
ROA	-19/6533	0.0000	Mana's confirmation
BTM	-23/9868	0.0000	Mana's confirmation
LIQ	-39/0674	0.0000	Mana's confirmation
TOBIN_Q	-10/4058	0.0000	Mana's confirmation
Growth	-10/1801	0.0000	Mana's confirmation

Source: Output of E views software

Analysis of the unit root test: Considering that the probability value of the unit root tests in all the above situations is less than 0.05, it is concluded that the statistical assumption of having a unit root in all the above variables is rejected. Therefore, these variables are basic. In this way, the model can be estimated without any concern about the occurrence of false regression.

C) Co-accumulation test:

The co-accumulation test examines the existence of a long-term relationship between model variables, and this test is also used to ensure that false regression does not occur. If some variables are not stable, this test is mandatory, but here, due to the significance (stable) of all model variables, this test can be ignored. Anyway, it is given here for more emphasis. The results of the co-accumulation test of Kao residuals on the variables of the above model are as follows:

Table (5) results of cointegration test

Title of exam	value statistics	Probability value
Co-integration test Kao residuals	37.41284	0.0000

Source: Output of E views software

Co-integration test analysis: Since the probability value for the Kao co-integration test statistic (Kao) is less than 0.05As a result, the assumption of no long-term relationship between model variables is rejected, and it is concluded be the variables of the model, in each of the models the above are also accumulated.

3-7-2. The estimation results of the first model:

In order to test the first hypothesis of the research, the estimation results of the research model presented in table (10) have been used. In the following, the analysis of the results of the relevant table and the results of the hypothesis test are presented:

A. Statistical results Kaido:

Statistics LR, which is similar to the F statistic in the linear regression model, has a chi-square distribution. The value of this statistic is 50.39. The probability of the LR statistic (0.000) shows that the null hypothesis that all the coefficients of the independent variables are zero is confirmed at the 95% confidence level, and therefore the regression model is significant.

B. Results of pseudo-statistics R2 or R2 McFadden:

With statistics, Mc Fadden's R2, whose value varies between zero and one, measures the goodness of fit of the model. The closer this index is to one, the more the model matches reality and, in other words, the better the fit; Conversely, the closer the index value is to zero, the lower the goodness of fit. The value of McFadden's R2 statistic in the estimated model is 0.088, which is acceptable for logistic regression.

3-7-3. Examining the fit of the model

A. Collinearity of independent variables (criterion of variance inflation factor-VIF):

The correlation coefficients table was used to check the presence or absence of collinearity between independent variables. However, since double collinearity can only be investigated with correlation coefficients, the criterion of variance inflation factor is used to detect multiple collinearities. Test results in the software Eviews are as follows:

Table (6) variance inflation test (VIF)

Variable	Variance inflation index (VIF)
RPT	1.038110
BIND	1.034509
INST	1.200315
A_TYPE	1.016817
BTM	1.333222
GROWTH	1.204614
LEV	1.345692
LIQ	1.568453
ROA	1.053673
SIZE	1.460685
TOBIN_Q	1.299611
C	N.A

Source: Output of E views software

Since the value VIF is less than 5, it means that there is no collinearity.

B. Variance heterogeneity test (White's test):

The results of White's test are as follows:

Table (7) variance heterogeneity test (VIF)

Test type	Chi-square statistic value	prob value	result
Variance heterogeneity test	3.743009	0.0000	There is no homogeneity of variance

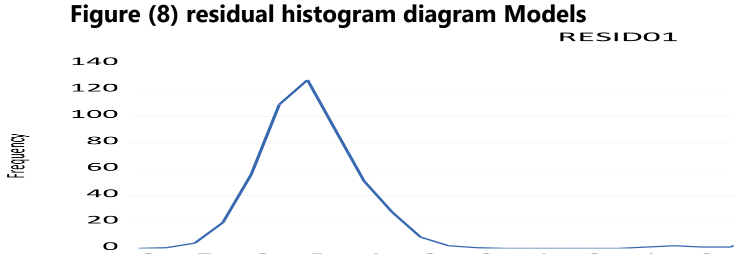
Source: Output of E views software

Since the value of statistics is significant (the probability value is less than 0.05), it is concluded that the null hypothesis based on the equality of variances is rejected. Therefore, it is necessary to apply the necessary correction and corrections in your model, which has been done. Thus, in the method of calculating the covariance matrix of coefficients (Co-covariance method) in the settings during the execution of the panel model, the Cross-section weights (PCSE) option is selected. This work changes the method of calculating the standard error of the coefficients, and accordingly, the Student's t-statistic and the corresponding significance levels are corrected due to the heterogeneity of the existing variance.

C. Normality of model residuals:

A residual histogram chart of the models is as follows:

Figure (8) residual histogram diagram Models



Source: Output of Eviews software

Almost bell shaped remaining histogram is shown in the above picture; this is what remains model has a normal distribution; therefore, the model has been successfully fitted, and its results are reliable.

3-7-4. Model charts hypothesis:

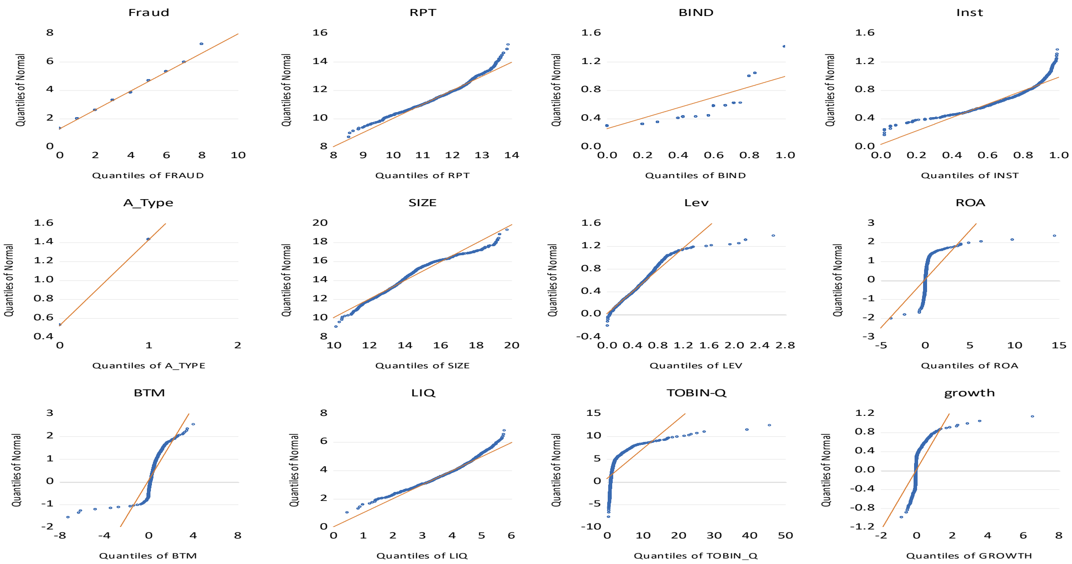


Figure (10) diagrams of the hypothesis model Research

3-7-5. The results of the first hypothesis test:

Research hypothesis: Transactions with related parties have an effect on fraudulent reporting.

A) Estimation of the model by logit method:

According to the previous explanations, the estimated model and its coefficients are as follows:

Table (9) regression model of the first hypothesis

$$Fraud_{it} = \alpha_0 + \alpha_1 RPT_{it} + \alpha_2 BInd_{it} + \alpha_3 Inst_{it} + \alpha_4 A\_Type_{it} + \sum_k \alpha_k \sum_{it}^{k} CONTROL_{it}^{k} + \varepsilon_{it}$$

Variable	Regression coefficient	Standard error	statistics	probability value
RPT	0.045684	0.014586	3.132026	0.0576
BIND	0.354246	0.122410	2.893943	0.0038
INST	0.220710	0.225455	0.978951	0.3276
A_TYPE	-0.078156	0.028585	-2.73412	0.0629
SIZE	-0.089364	0.031069	-2.87633	0.0040
LEV	0.164346	0.201375	0.816119	0.4144
ROA	0.043818	0.092901	0.471662	0.6372
BTM	-0.104553	0.099381	-1.05203	0.2928
LIQ	0.197115	0.060120	3.278681	0.0010
TOBIN_Q	-0.000430	0.013988	-0.03072	0.9755
GROWTH	0.109807	0.110147	0.996910	0.3188
c	0.727911	0.668085	1.089548	0.2759
McFadden coefficient of determination	0.419008			
The value of the statistic	26.65791			
The significance of the whole model	0.005174			

Source: Output of Eviews software

3-7-6. Second hypothesis test:

The second main hypothesis: It has a moderating effect on the relationship between transactions with related parties and fraudulent reporting.

The first sub-hypothesis: The independence of the board of directors has a moderating effect on the relationship between transactions with related parties and fraudulent reporting.
The second sub-hypothesis: Institutional shareholders have a moderating effect on the relationship between transactions with related parties and fraudulent reporting.
The third sub-hypothesis: The type of audit firm has a moderating effect on the relationship between transactions with related parties and fraudulent reporting.

Table (10) regression models the second hypothesis

$$Fraud_{it} = \alpha_0 + \alpha_1 RPT_{it} + \alpha_2 BInd_{it} + \alpha_3 Inst_{it} + \alpha_4 A\_Type_{it} + \alpha_5 RPT * BInd_{it} + \alpha_6 RPT * Inst_{it} + \alpha_7 RPT * A\_Type_{it} + \sum_{k} \alpha_k \sum_{it}^{k} CONTROL_{it}^{k} + \varepsilon_{it}$$

Variable name	Regression coefficient	Standard error	statistics	probability value
RPT	0.038203	0.009001	4.244187	0.0071
BIND	-0.226050	0.104518	-2.16278	0.0707
INST	0.447717	2.424957	0.184629	0.8535
A_TYPE	1.015371	0.388140	2.615988	0.0379
RPT*Bind	0.048905	0.020250	2.414957	0.0782
RPT*Inst	-0.019301	0.203410	-0.09488	0.9244
RPT*A_TYPE	-0.091426	0.137642	-0.66423	0.5065
SIZE	-0.089133	0.031173	-2.85931	0.0042
LEV	0.158087	0.201743	0.783609	0.4333
ROA	0.041270	0.093196	0.442825	0.6579
BTM	-0.107649	0.099647	-1.08030	0.2800
LIQ	0.195782	0.060334	3.244950	0.0012
TOBIN_Q	-0.000757	0.013945	-0.05432	0.9567
GROWTH	0.106467	0.109957	0.968258	0.3329
c	0.650204	1.863605	0.348896	0.7272
McFadden coefficient of determination	0.419008			
The value of the statistic	26.65791			
The significance of the whole model	0.005174			

Source: Output of Eviews software

4. Results and Discussion

In general, the results shown in table (10) shows that the variable coefficient of transactions with related parties is 0.045, which indicates the direct effect of this variable on fraudulent conduct; And, according to the significance level (0.0576), is about 5%, it is significant, Therefore, the first hypothesis of the research, that is, the effect of transactions with related parties of fraudulent organization, is confirmed. Also, according to the research results in table (10), the variables of independence of the board of directors (0.0038), company size (0.004), and liquidity (0.001) have a significance level of less than 5%, so the effect of the mentioned variables at the 95% confidence level on the relationship Between transactions with related parties and fraudulent reporting, the effect of meaning you have At the same time, the influence of the independence of the board of directors and the liquidity of the fraudulent holding is direct. That is, with the increase of the mentioned variables, fraudulent reporting increases, and on the contrary, according to the negative sign of the coefficient of the company size variable, its effect on fraudulent reporting is the opposite, that is, with large company becomes wet, fraudulent reporting is reduced find. In addition, the variables of institutional shareholders, type of auditor, leverage, leverage, ROA, BTM, Q-Tobin, and company sales growth have a significant level of more than 5%, so the effect of the mentioned variables on the relationship between transactions with related parties and fraudulent reporting is significant.
The results of the research are shown in table (11).indicates that the independence variable of the board of directors has a significant level (0.0707) and is more than 5 percentage, so this variable has a significant effect on the relationship between transactions with related parties and fraudulent reporting you don't have. Also, the variable of institutional shareholders has a significant level (0.8535) and is more than 5%, so institutional shareholders have a significant effect on the relationship between

transactions with related parties, and fraudulent reporting you don't have. On the other hand, the audit firm type variable has a significant level (0.0379) and is less than 5%; therefore, the effect of the type of auditor is significant at the 95% confidence level that is, the type of auditor has a direct effect and meaning on the relationship between transactions with related parties and fraudulent reporting you have So the third sub-hypothesis the research confirms it made. Also, the variable of the product of transactions with related parties and the independence of the board of directors (RPT*Bind) has a significant level (0.0782). and it is more than 5%, so the mentioned variable of holding fraudulent thanks has no significant effect. Also, the variable of the product of transactions with related parties and institutional shareholders (RPT*Inst) has a significant level (0.924) and is more than 5%, so the mentioned variable has a significant effect on fraudulent reporting you don't have. Also, the variable of the product of transactions with related parties and institutional shareholders (RPT*A-Type) has a significant level (0.506) and is more than 5%, so the mentioned variable has a significant effect on fraudulent reporting you don't have. On the other hand, the variables of company size (0.0042) and liquidity (0.0012) have a significance level of less than 5%, so the impact of the aforementioned variables is significant at the 95% confidence level, that is, the aforementioned variables affect the relationship between transactions with related parties and reporting. Fraudulently have a significant effect, and according to the sign of the coefficient of company size and liquidity variables, their effect on fraudulent reporting is inverse and direct, respectively. Also, the variables of independence of the board of directors, institutional shareholders, leverage, leverage, ROA, BTM, Q-Tobin, and the company's sales growth have a significant level of more than 5%, so these variables have an effect on fraudulent reporting.

5. Conclusion

The hypotheses of this research and the results of the research hypotheses test are as follows: The first main hypothesis of this research was proposed as "There is a significant relationship between transactions with related parties and fraudulent reporting." The results of the first main hypothesis test show that transactions with related parties have a positive and significant relationship with fraudulent reporting; in other words, if there are transactions with related parties in the company, fraudulent reporting will increase in the company. Therefore, the first hypothesis of the research in the direction of confirmation, and its results are consistent with the research of Xuting Mao (2022), Maleki Kakler (2022), Bakhtiari & Mehrabanpour (2017), and Berari (2016). Based on the results of table (10), according to the level of significance (0.0576), which is about 5%, it is significant, and transactions with related parties have a direct effect on fraudulent reporting. Therefore, the first hypothesis of the research, that is, the effect of transactions with related parties on fraudulent reporting, is confirmed. Also, according to the research results of the mentioned table, the variables of independence of the board of directors (0.0038), company size (0.004), and liquidity (0.001) have a significance level of less than 5%, so the effect of the mentioned variables at the 95% confidence level on the relationship between transactions with Related parties and fraudulent reporting have a significant effect. At the same time, the influence of the independence of the board of directors and the liquidity of the fraudulent holding is direct. That is, with the increase in the value of the mentioned variables, fraudulent reporting increases, and on the contrary, due to the negative sign of the coefficient of the company size variable, its effect on fraudulent reporting is inverse, that is, as the company gets bigger, fraudulent reporting decreases. In addition, the variables of institutional shareholders, type of auditor, leverage, ROA, BTM, Q-Tobin, and the company's sales growth have a significant level of more than 5%. Therefore, the effect of the mentioned variables on the relationship between transactions with related parties and fraudulent reporting does not have a significant effect.

The second main hypothesis of this research was proposed as follows: "Corporate governance has a moderating effect on the relationship between transactions with related parties and fraudulent reporting." This hypothesis includes three sub-hypotheses as follows:

1) "The independence of the board of directors has a moderating effect on the relationship between transactions with related parties and fraudulent reporting."
2) "Institutional shareholders have a moderating effect on the relationship between transactions with related parties and fraudulent reporting."
3) "The type of auditing firm has a moderating effect on the relationship between transactions with related parties and fraudulent reporting."

Based on the results of the research in the table (11), the independence variable of the board of directors has a significant level (0.0707) and is more than 5%, so this variable has no significant effect on the relationship between transactions with related parties and fraudulent reporting, and its results are consistent with The research of Rahmanian Koushkaki and Arab Yarmohammadi (2020) and Saraf (2019) are consistent. Also, the variable of institutional shareholders has a significant level (0.8535) and is more than 5%; therefore, institutional shareholders do not have a significant effect on the relationship between transactions with related parties and fraudulent reporting, and its results are consistent with the research of Ghorbani Esfahalan (2021), Mazraei (2021).), Arab Yarmohammadi (2020) and Abcher and Saraf (2019) are consistent.

On the other hand, the auditor type variable has a significance level (0.0379) and is less than 5%, so the effect of this variable is significant at the 95% confidence level; that is, the type of auditor has an effect on the relationship between transactions with related parties and fraudulent reporting. It is direct and meaningful. Therefore, the third sub-hypothesis of the research is confirmed, and its results are consistent with the research of Mohammadi (2022).

Also, the variable of the product of transactions with related parties and the independence of the board of directors (RPT*Bind) has a significant level (0.0782) and is more than 5%, so this variable does not have a significant effect on fraudulent reporting. Also, the variable of the product of transactions with related parties and institutional shareholders (RPT*Inst) has a significant level (0.924) and is more than 5%, so this variable does not have a significant effect on fraudulent reporting.

Also, the variable of the product of transactions with related parties and institutional shareholders (RPT*A_Type) has a significant level (0.506) and is more than 5%, so this variable does not have a significant effect on fraudulent reporting.

On the other hand, the variables of company size (0.0042) and liquidity (0.0012) have a significance level of less than 5%, so the impact of the mentioned variables is significant at the 95% confidence level, that is, the mentioned variables have an effect on the relationship between transactions with related parties and reporting. Fraudulently have a significant effect, and according to the sign of the coefficient of the variables of company size and liquidity, their effect on fraudulent reporting is inverse and direct, respectively, and its results are consistent with the research of Arin Tabar (2021).

Also, the variables of independence of the board of directors, institutional shareholders, leverage, return, market value to book value, Q-tubin, and company sales growth have a significance level of more than 5%, so these variables do not have a significant effect on fraudulent reporting, and its results are consistent with Hijazi (2017), and Deliri (2021) correspond. Therefore:

- ✓ Based on the results of the research, it is suggested to the shareholders and investors of the companies that there is a positive and significant relationship between transactions with related parties and fraudulent reporting to pay more attention to transactions with related parties.
- ✓ According to the results of the research based on the positive and significant effect of the type of auditor on fraudulent reporting, which reduces fraudulent reporting, managers, shareholders, and investors of companies are suggested to pay more attention in choosing the type of auditor.
- ✓ The findings of the research show that there is an inverse relationship between the company size and the possibility of fraudulent reporting, so it is suggested to the shareholders and investors of the companies to pay more attention to the company size.
- ✓ Based on the findings of the research, the liquidity of the company has a direct and significant relationship with the possibility of fraudulent reporting; therefore, it is suggested to the shareholders and investors of the companies to pay more attention to the liquidity of the companies.
- ✓ Future research can pay attention to the types of transactions with related parties and their prevalence. Especially because there is evidence of the abuse of these transactions, a deep analysis of all types of transactions with related parties is necessary. Also, the appropriateness of auditors' opinions about the transactions of companies with related parties can be the subject of future research, as well as the use of different scales to measure transactions with related parties, such as the number of parties involved in the transaction, the type and amount of Riyal transactions with related parties in future research.
- ✓ In this research, the effect of three corporate governance variables on the probability of fraudulent reporting was investigated. Therefore, more research can be done using other variables of corporate governance to investigate their impact on the possibility of fraudulent reporting.
- ✓ Repeating the research using other models for predicting the probability of fraudulent reporting by companies and comparing it with the current research (including logistic regression, logit analysis, etc.) by conducting more research in the future can provide a more appropriate description of the issue of fraud in financial statements, and as a result, help to improve the quality of financial reporting.
- ✓ This research was conducted in Tehran Stock Exchange companies, so its generalization to other societies (such as over-the-counter companies or investment companies) should be made with full caution.
- ✓ The time period of the research is from 2012 to ,2021 and its generalization to other time periods should be made with full caution.
- ✓ The effect of inflation on the financial statements and the results of this research has not been taken into account.
- ✓ The effect of economic sanctions on the financial statements and results of this research has not been taken into account.

Table (11) summarizes the results of the research hypotheses

Row	Hypothesis	Direction	result Hypothesis	Comparison with previous research
1	There is a significant relationship between related party transactions and fraudulent reporting	Positive	confirmation	According to the research of Sajjadi and Kazemi (2015) and Xuting Mao (2022)
2	There is a significant relationship between the type of auditor and the relationship between transactions with related parties and fraudulent reporting	Positive	confirmation	Like With research and Maleki Kockler (2022), Mohammadi (2022), and Xuting Mao (2022)
3	There is a significant relationship between the independence of the board of directors and the relationship between transactions with related parties and fraudulent reporting	-	rejection	According to the research of Maleki Kockler (2022) and Rahmanian Koushkaki and Arab Yarmohammadi (2020)
4	There is a significant relationship between institutional shareholders and the relationship between transactions with related parties and fraudulent reporting	-	rejection	According to the research of Maleki Kockler (2022), Ghorbani Esfahalan (2021), Mezraei (2021), and Abcher and Saraf (2019)

Funding: This research received no external funding.
Conflicts of Interest: The authors declare no conflict of interest.
Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

[1] Abbaszadeh K. (2016), competition in the product market of transactions with related parties and the price of audit services, accounting and auditing reviews of *Tehran University Management School, 24(1)*. 61-80.
[2] Abcher M. (2019), the relationship between financial strategies and corporate governance on the tunnel-like behavior of shareholders on the performance of companies listed on the Tehran Stock Exchange. *Financial engineering and securities management (portfolio management), 9(36)51-74*.
[3] Adelian R. (2021) investigating the impact of corporate governance mechanisms on the internal and sustainable growth of companies by explaining the moderating role of the financial crisis.*New research in management and accounting, new period, 51, 65-98*.
[4] Al-Helaly, M.(2018), Related-party transactions: a review of the regulation, governance and auditing literature, *Managerial Auditing Journal, 33(8/9)*. 779-806.https://doi.org/10.1108/MAJ-07-2017-1602
[5] Arab Y, Mohsen, D, F (2020), Investigating the relationship between corporate governance, financial reporting ambiguity, and the fall in stock prices in companies listed on the Tehran Stock Exchange, *New Research Approaches in Management and Accounting Quarterly, 5(82)* 63- 83.
[6] Arin T. (2021), examining the relationship between the ability of managers and the marginal value of cash considering the moderating role of corporate governance, research *Budget, and financial strategies, 2(3)* 183-217.
[7] Asaadi and Abri (2019), the effect of ownership structure and corporate governance on the performance of banks with the approach of structural equations, *Experimental Accounting Research, 2(6)*. 49-64.
[8] Babajani B. (2019), a model for corporate governance in Iranian banks, financial accounting and auditing research, 10(40). 111-136.
[9] Badavar and Heshmat (2017), identifying the motives of transactions with related parties, *Accounting Empirical Research, 2(6)* 49-64.
[10] Bakhtiari M and Salami D M (2017), the impact of fraudulent financial reporting on the financial crisis with an emphasis on transactions with related parties, *Accounting and Management Perspectives Quarterly, 1(2)*.
[11] Bao Y, Ke B, Li B. (2019). Detecting accounting fraud in publicly traded US firms using a machine learning approach. *Journal of Accounting Research; 58:* 199-235.
[12] butZadeh L. (2019), the interactive effect of the quality of accruals and the quality of corporate governance on the volatility of the company's performance, *Experimental Accounting Research, 2(6)* 49-64.
[13] Dadashi W. (2017), the effect of the internal audit structure on the possibility of fraud in the financial statements of companies listed on the Tehran Stock Exchange, Danesh Audit, year 18, number 70.
[14] Dalnial, H., Kamaluddin, A., Sanusi, ZM, & Khairuddin, KS (2014). Detecting fraudulent financial reporting through financial statement analysis. *Journal of Advanced Management Science, 2*(1).

[15] don'tEi K. (2015), communicationCorporate governance and its dimensions with capital efficiencyputcompanyHiAccepted in Tehran Stock Exchange, *Financial Accounting Experimental Studies Quarterly, 13(52)*1-28.

[16] Ebrahimian W. (2019) provides a model to predict the possibility of fraud in financial statements using logistic regression, *Audit Knowledge, Volume 20(79).*

[17] Esmailzadeh M. (2016), the effect of transactions with related parties on cash dividends, *financial accounting and auditing research, 8(31). 57-72*.

[18] Etemadi, H, and Zalqi, H (2016), The relationship between corporate governance structure and the possibility of fraudulent financial reporting, *Experimental Accounting Research, 8(31)* 313-336.

[19] Fallah H. (2021), Managers' power and overconfidence and fraudulent reporting, Financial Economics Quarterly, 15th year, No. 54,379-400.

[20] Ganad H. (2017), Transactions with related parties and its relationship with efficient or opportunistic behavior of profit management, monetary and financial economics researches (former knowledge and development), year 25(16).

[21] Gao L, Feng J. (2012). Bayesian prediction of internal bank fraud based on variable position parameters. *Chinese Journal of Management Science; 20 (02):20*-25. (In Chinese)

[22] Ghorbani E. (2021), the role of ownership structure on the relationship between transactions with related parties and profit management, *Shammaz Accounting and Management, 4(42)*

[23] Gordon, EA, Henry, E., & Palia, D. (2004). Related party transactions and corporate governance. In corporate governance. Emerald Group Publishing Limited.

[24] HajiHa Z and Azadzadeh A (2019), relationship bN transactions with related parties and Accountant information: Investigating the role of fashion opportunistic behavior thigh, *experimental accounting research, 187-211*.

[25] Hexana S L, Etty M, Haryono U. (2022). Media Research Akuntansi, *Auditing & Informasi 22*

[26] Hijazi, R, Hamid R, M (2016), the relationship between corporate governance and transactions with related parties, Value and *Behavioral Accounting Quarterly, 2(3)*. 33-60.

[27] Hope OK, Lu H. (2020). Economic consequences of corporate governance disclosure: evidence from the 2006 SEC regulation on related-party transactions. *Accounting Review 2020; 95(4):263*-290.

[28] Hosseini M. (2016), the relationship between the complex ownership structure of subsidiaries and related party transactions, *Accounting Empirical Research, 6 (21) 41*-62.

[29] Indrati, M., Hermanto, H., Purwaningsih, E., Agustinah, W., & Sarikha, A. (2021). Corporate Governance Mechanisms and Possible Financial Statements Containing Fraud. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences, 4*(4), 8609-8621.

[30] Jabarzadeh K. (2018), the impact of corporate governance on the tone of financial reporting, *Accounting Experimental Research, 2(6)*. 49-64.

[31] Jalai K. (2016), the effect of the quality of corporate governance index on limiting profit management by using unusual transactions with individuals in companies listed on the Tehran Stock Exchange, *Financial Management Strategy, 16* 1-27.

[32] Jamshidi B. (2021), examining the dimensions of corporate governance in the Islamic paradigm, *experimental accounting research 12(42)*. 187-210.

[33] Jamshidi N, W. (2021), Identifying the motivations of transactions with related parties, *Accounting Empirical Research 2(6) 49-64*.

[34] Khalili S. (2021), ranking internal and external factors are affecting fraudulent financial reporting using the hierarchical analysis process, *Financial Economics Quarterly, 55, 23- 246.*

[35] Khan, NI, & Hapiz, AAM (2022). Financial Statement Fraud: Evidence from Malaysian Public Listed Companies. *Jurnal Intelek, 17*(1), 181-194.

[36] Lastanti, HS, Murwaningsari, E., & Umar, H. (2022). THE EFFECT OF HEXAGON FRAUD ON FRAUD FINANCIAL STATEMENTS WITH GOVERNANCE AND CULTURE AS MODERATION VARIABLES: PENGARUH FRAUD HEXAGON TERHADAP FINANCIAL STATEMENT FRAUD DENGAN GOVERNANCE AND CULTURE SEBAGAI VARIABEL PEMODERASI. *Media Research Accounting, Auditing & Information, 22*(1), 143-156.

[37] Li B, Zhang X. (2021). Research on risk contagion mechanism of enterprise group based on network structure. *Chinese Journal of Management Science 2021; 1*-12. (In Chinese).

[38] Li J, Li G, Liu M. (n.d). A novel text-based framework for forecasting agricultural futures using massive online news headlines.

[39] Li J, Li J, Zhu X, (2020). Risk spillovers between FinTech and traditional financial institutions: *Evidence from the US International Review of Financial Analysis;* 71:101544.

[40] Liu M, Li G, Li J (2021). Forecasting the price of Bitcoin using deep learning. Finance Research Letters 40: 101755.

[41] Lotfipour V. (2015), the effect of transactions with related parties on the relevance of profits in determining the market value of shares of companies listed on the Tehran Stock Exchange, *bi-quarterly Journal of Monetary and Financial Economics (Knowledge and Development) 2015, 23(12).*

[42] Mahdavi, G, and Rezaei, G (2016), Mediation effect of voluntary disclosure and profit quality on the relationship between corporate governance structure and information asymmetry, *Accounting and Auditing Research, 39*. 21-36.

[43] Maleki K. H (2022), the effectiveness of statistical models and machine learning patterns in predicting fraudulent financial reporting, *Financial Economics Quarterly, 15th year 54, 267-292.*

[44] Mao, X., Sun, H., Zhu, X., & Li, J. (2022). Financial fraud detection using the related-party transaction knowledge graph. Proceedings of Computer Science, 199, 733-740.

[45] Mehrabanpour K. (2016) investigating the effect of political relations of companies on the use of unusual transactions with related parties, value and behavioral accounting bi-quarterly, *second year, and third issue*. 147-168.

[46] Mehrabanpour K. (2018), investigating the moderating role of auditor expertise on the relationship between transactions with related parties and investment efficiency, *Experimental Accounting Research, Year 9, 33* 55-75.

[47] Mehrabanpour M and Nourizadeh Z (2017) investigating the relationship between corporate governance structure and the possibility of fraudulent financial reporting by companies, accounting, and auditing research.

[48] Memeshli O. (2018), the role of profit quality in identifying fraudulent financial reporting, *Experimental Accounting Research, 8(31). 313-336.*

[49] Mezraei N. (2021), investigating the impact of corporate governance mechanism on the relationship between transactions with related parties and profit management, *Quarterly Journal of Modern Research Approaches in Management and Accounting, 5(75)* 71-92.

[50] Miri, N, and Arbabian, A (2017), the impact of corporate governance mechanisms on risk reporting, *financial accounting and auditing research, 10(40)*. 111-136.

[51] Mohammadi, (2022), Transactions with related parties, the degree of diversity and audit failure due to company fraud: an analysis of the auditor's level, *Quarterly Journal of Modern Research Approaches in Management and Accounting, 82*. 166-180.

[52] Ndofor HA, Wesley C, Priem RL. (2013). Providing CEOs with opportunities to cheat. *Journal of Management; 41*(6):1774-1797.

[53] Nekhili M, Cherif M. (2011). Related party transactions and firm's market value: the French case. *Review of Accounting and Finance;* 10(3):291-315.

[54] Norosh M. (1400), the effect of corporate governance on audit report delay in Iran's insurance industry, *Accounting Empirical Research, 2 6). 49-64*.

[55] Popping R. (2003). Knowledge graphs and network text analysis. *Social Science Information 42*(1):91-106.

[56] Qu W, Kang S, Wang L. (2020). Saving or tunnelling: value effects of tax avoidance in Chinese listed local government-controlled firms. *Accounting and Finance 60*(5):4421-4465.

[57] Rahmanian, A R, Navidi, A (2020), the effect of managers' experience and influence on the relationship between fraudulent financial statements and the quality of financial reporting of companies listed on the Tehran Stock Exchange, Scientific *Quarterly of ProgressFinance and investment, first year, 1, 101-118*.

[58] Rahwan Z, Yoeli E, Fasolo B. (2019). Heterogeneity in banker culture and its influence on dishonesty. *Nature* 575:345-349.

[59] Razali, WAAWM, & Arshad, R. (2014). Disclosure of corporate governance structure and the likelihood of fraudulent financial reporting. *Procedia-Social and Behavioral Sciences, 145*, 243-253.

[60] Rezaei, Y, Grayili, M (2016), Readability of financial reporting and the possibility of fraudulent financial reporting, *Financial Accounting Research, 10(4).*

[61] Rizvani N. (2019), the effect of financial knowledge and size of the board of directors on fraudulent reporting, *Accounting and Management Perspectives Quarterly, 3(34)*

[62] Sadat K. (2021), analyzing the behavior of the managers of the reporting unit towards the preparation of fraudulent financial statements, *experimental accounting research, year 12(42), 77-104.*

[63] Sahadah M. (2015), investigating the relationship between transactions with related parties and the gap between the right of control and the right of ownership of the ultimate controlling shareholder, *Financial Management Strategy, 4(11) 45-65.*

[64] Sajjadi, H, and Kazemi, T (2015), a comprehensive model of fraudulent financial reporting in Iran by theorizing the foundation, *Experimental Accounting Research, 6(21).* 185-204.

[65] Saraf K. (2019), Basics of Corporate Governance and Performance of Financial Institutions, *Perspective Accounting and Management Quarterly, 1(5).*

[66] Sheari, S, and Hamidi, E (2013), Identifying the motives of transactions with related parties, *Accounting Empirical Research, 2(6). 49-64.*

[67] Talebi and Deliri (2021), the impact of corporate governance on company performance in emerging markets, contemporary research quarterly in management and accounting sciences, *fourth year, 9.*

[68] Zhu X, and Li J. (2020). A review of bank risk integration under correlation. *Chinese Journal of Management Science; 28(08):1-14. (In Chinese)*

[69] Zimon, G.; Apolloni, A.; Tarighi, H.; Shahmohammadi, S.; Daneshpou, E. (2021). Earnings Management, Related Party Transactions, and Corporate Performance: *The Moderating Role of Internal Control. Risks 2021, 9, 146*. https://doi.org/10.3390/risks 9080146.