

Integrated Reporting, Earnings Quality and Agency Costs: Tehran Stock Exchange¹

*Leila Zamani**,

Assistant Professor, Department of Accounting, Faculty of Management and Finance, Khatam University, Tehran, Iran

Samad Borzoian Shirvan,

Assistant Professor, Economics of Education, Department of Educational Planning and Management, Faculty of Psychology and Educational Sciences, Allameh Tabataba'i University, Tehran, Iran

Maryam Chopani

Master of Management accounting, Department of Accounting, Faculty of Management and Finance, Khatam University, Tehran, Iran

ABSTRACT

This study aimed to analyze the moderating effect of agency costs on the relationship between integrated reporting and earnings quality at the companies listed in the Tehran Stock Exchange. The statistical population of this applied descriptive-analytical ex-post facto study included all the TSE-listed companies within an eight-year period (2013–2020). The systematic sampling method was employed to select 146 companies as the research sample. The collected data and calculated variables were used first to analyze the relationship between integrated reporting and earnings quality of companies and then to determine the moderating effect of agency costs on this relationship. The company size, company age, auditor type, financial leverage, company loss, profitability, and sales growth were used as the control variables in regression models. The research findings indicated that there was a positive significant relationship between integrated reporting and earnings quality. Considered the moderating variable, agency costs had a positive significant effect on the relationship between integrated reporting and earnings quality. According to the results, it is recommended that decision-makers, managers, and other qualified individuals adopt appropriate policies and tools to mitigate agency costs at companies in order to provide all stakeholders with access to information.

Keywords: Integrated Reporting, Earnings Quality, Agency Costs

JEL Classifications: M41, M42, M48, G10.

¹ Acknowledgments

I would like to express its gratitude to all the individuals who are associated, directly or indirectly, to this paper. Similarly, special thanks go to Mr. Samad Borzoian Shirvan for his contribution in terms of technical support for data analysis and finalization of this paper.

Introduction

The term “integrated” was first proposed by White (2005) in an early integrated report of a company called *Integrated, Balanced, and Fair*. Paolucci *et al.* (2018) proved well that conventional financial statements faced many constraints to thoroughly describe the method of creating value in a company and its extensive effects on society. Given the widespread use of the agency theory, the one-dimensional performance view presented by financial statements would not be sufficient to address the information asymmetry. Integrated reporting is a necessary method for solving this incongruence. Theoretically speaking, an integrated report is expected to provide a comprehensive image of how to manage different capitals to respond to stakeholders. The Johannesburg Stock Exchange has ordered the listed company to provide these reports in order to encourage the extensive acceptance of integrated reporting. This decision is considered an important step in improving the utility of the integrated reports provided by the stock companies. In fact, an integrated report depends on valuable information for stakeholders. With the emergence of integrated reporting, the evolution of the corporate reporting process is now based on financial principles, managerial interpretation, governance, and reward in a method that shows their mutual dependence. The securities and exchange organizations emphasize that financial statements should always provide reliable information to help users make decisions. In other words, financial reports should include relevant, reliable, comparable, and understandable information.

The financial reporting of a company collects important information regarding its strategy, monitoring techniques, performance, methods of reflecting commercial and social contexts, and its operating environment. Despite a great deal of attention to earnings in financial analyses, there are still many relevant problems that should be discussed such as dependability and quality of the reported earnings. In other words, the reported earnings quality plays an essential role in the optimal allocation of resources in capital markets. Reporting the low-quality earnings and the earnings that fail to reflect the real outputs of companies would impose irreversible losses on investors, employees, other companies, and economy in general (Pergola, T., 2006). Achieving high-quality earnings would require robust regulations and appropriate executive mechanisms, a major instance of which is a corporate governance system. In fact, a corporate governance system focuses on the age of a company in the long run and seeks to protect the interests of stakeholders from the managers of companies and prevent the unwanted distribution of wealth among different groups and the violation of rights of the public and specific shareholders (Safarzadeh, 2014).

Researchers have regarded agency costs as a criterion for analyzing the role of agency. Not only does this criterion confirm the role of agency, but it also shows the conflicts of interests. In this regard, theorists have always tried to analyze the role of agency by measuring these costs; however, researchers face difficulty in measuring agency costs. Theorists believe that corporate disclosures — both mandatory and optional — act as a mechanism for regulating corporate management so that the company can play its agency role effectively (Eisenhardt, K. M., 1989). Bushman, *et al.* (2001) introduced this phenomenon as the controlling role of the corporate disclosure, for it provides managers with useful information for decision-making and ensures the effective use of commercial resources. At the same time, corporate disclosures inform shareholders of the effective managerial activities in improving their controlling activities. Nevertheless, the capability of corporate disclosure can be discussed to guarantee these results, for they are thought to be affected by the other hidden subjective motives (Core, J. E., 2001; Christensen *et al.*, 2015). For instance, Core J. E. (2001) believed that corporate disclosures included some levels of managerial biases that would weaken the quality of disclosure in decision-making. In addition, Christensen *et al.* (2015) emphasized that reporting rewards would be important in explaining the quality of corporate disclosures if accounting standards existed. In fact, it is necessary to encourage managers to perform reporting operations in order to form the reporting process for high-quality disclosures.

Accordingly, integrated reporting can greatly help users perceive the operations of commercial units. Moreover, the identification of determinants (*i.e.*, effective variables) affects the earnings quality for the

decision-making of legislators. There are many complexities in making decisions on the formulation of different policies to control and mitigate agency costs. It is essential to consider various mechanism and variables as well as their effects and relationships. In other words, agency costs must be regarded as a system. Hence, this study analyzed the relationship between integrated reporting and earnings quality through the moderating effect of agency costs. In addition to reviewing both theoretical and empirical foundations, the next section explains the research hypotheses, conceptual model, and methodology. After that, the research findings are presented. Finally, the research conclusion is drawn, and the necessary suggestions are made.

Theoretical Foundations

Integrated Reporting and Earnings Quality

Integrated reporting is the process of coordinating financial and nonfinancial information in corporate reporting in relation to an extensive concept of value. This type of reporting collects information regarding finances, monitoring, and sustainable development through the information system of a company to meet the needs of users (International Integrated Reporting Committee, 2011). According to the previous studies, the quality of accounting information is probably improved by the performance of a reporting system (IIRC, 2013). Barth *et al.* (2017) emphasized that the complete disclosure of a reporting system would result in the more accurate disclosure of liquidity at a company, something which affects the decisions of managers and investors. Such a complete and accurate disclosure of relevant information is related to the high-quality reporting under the performance of a reporting system (IIRC, 2013). In the studies on information disclosure, the earnings quality was used extensively to evaluate the quality of accounting (Dechow *et al.*, 2010; DeFond, 2010). Analyzing the negative relationship between a reporting system quality and an analyst's prediction error, Zhou *et al.* (2017) concluded that the negative relationship was caused by the reduced level of information asymmetry of companies. Bernardi, *et al.* (2018) believed that the positive relationship between a reporting system and an analyst's prediction accuracy was affected by the type of environment and the disclosure of governance in preparing integrated reports. The International Integrated Reporting Committee (IIRC) (2013) announced that companies with integrated reporting systems should present complete disclosures based on a level of integration and cohesion that would enhance the quality of accounting information. In fact, a reporting system is expected to provide a better ground for perception by considering nonfinancial information and conducting a comprehensive analysis of information. These features of a reporting system guarantee the further clarity and completion of financial reports at companies (IIRC, 2013; Zhou, *et al.* 2017). Since the clarity and transparency of information are among the features of high-quality information, the performance of a reporting system should be considered a factor affecting the higher earnings quality of companies.

Agency Costs, Integrated Reporting and Earnings Quality

The continuity and dependence of information through the use of a cohesive mindset has resulted in a better view of value creation and broadened the domain of corporate reporting (Eccles, *et al.* 2010). Although Paternostro (2013) emphasized that companies with various reporting systems would indicate access to information at different degrees, some of the companies with integrated financial reporting systems that are merged cannot be very competent. However, some other companies have medium-to-high levels of capability in integrated financial reporting (Paternostro, 2013). Since companies with different reporting systems differ in access to information, considering this main factor of the reporting system performance in relation to the earnings quality will give a better insight into the performance of this system in terms of the most important factor. The relationship between the integration level and the earnings quality is based on the information asymmetry theory and the shareholder theory. According to the information asymmetry theory, a disclosure process of the earnings quality helps better control and regulate a company. Therefore, the integration level related to the reporting system performance provides a tool for better communication through the created value, for it helps achieve a proportion between financial information and nonfinancial information. At the same time, people in society seek inherently to increase their personal

interests, something to which managers are no exception. In fact, managers like to present favorable images of the financial status of their businesses to shareholders and other stakeholders in order to maximize their personal interests and social welfare and fixate their positions. In some cases, increasing the wealth of managers would not necessarily lead to the increased interests of other stakeholders such as shareholders, a fact which indicates the inconsistency between the interests of managers and those of other stakeholders in a business. Therefore, business managers can consider the theory of conflicts of interests between managers and owners to have the necessary motivation for earnings quality to maximize their interests. When managers and shareholders have contradictory goals, managers may take advantage of their informational supremacy to meet their needs and provide shareholders with unreal information. The further the differences between managers and shareholders, the more inclined the managers to moral involvements. Based on this theoretical analysis, the agency mechanism and information asymmetry can easily lead to agency costs and earnings quality, for earnings quality is the behavioral outcome of agency costs between shareholders and managers. Regarding the relationship between agency costs and earnings quality, the content of empirical evidence in the research literature is somehow vague and ambiguous because earnings quality is ensured by managers with different goals. If earnings quality is guaranteed by managers with opportunistic goals, companies with higher agency costs will then show higher levels of earnings quality. In other words, there is a positive relationship between earnings quality and the intensity of agency conflict. However, if earnings quality is inconsistent with the personal interests of managers, companies with high agency costs will be expected to have lower levels of earnings quality because managers do not ensure earnings quality in favor of their personal interests (Jiraporn, *et al.*, 2008). If the employer–broker conflicts are reduced, the agency costs which have facilitated these conflicts will be mitigated, something which can help reduce earnings quality. Thus, considering the theory of conflict of interest (COI) between managers and owners, business managers can have sufficient motivation for earnings quality to maximize their interests. Hence, agency costs are assumed to have a direct relationship with earnings quality.

Empirical Research Background

Relying on the order theory and the agency theory, Tran (2022) analyzed whether financial leverage would be affected by the quality of financial reporting. The results indicate that companies with higher levels of reporting quality have lower degrees of information asymmetry and lower debt ratios, something which is consistent with both the order theory and the agency theory. The results also indicate that the two aspects of reporting quality — qualitative features and earnings quality — are not alternative but supplementary in explaining the debt ratio. In addition, qualitative features play a more important role in mitigating the information asymmetry than earnings quality. Panfilo *et al.* (2022) analyzed the relationship between integrated reporting and credit risk based on the empirical evidence from the regulation of a mandatory integrated report. Their results indicated that integrated reporting (IR) was correlated with corporate reporting communication and that the mandatory acceptance of IR would help reduce credit risk and consequently decrease the debt costs. Moreover, the debt costs decrease more in the institutions having no organizational risk management systems; therefore, they indicated that debtors understood that IR would promote a more structured risk management approach. They also concluded that mandatory integrated reporting would help mitigate credit risk and reduce debt costs.

Obeng *et al.* (2020) analyzed integrated reports and earnings quality by considering the moderating role of agency costs. They indicated that there was a positive significant relationship between the voluntary acceptance of IR activities and earnings quality of companies. Furthermore, although the acceptance of IR had a positive significant relationship with earnings quality of companies with high agency costs, the moderating effect was confirmed on low levels of agency costs. Eventually, they indicated that the complexity of companies had a significant effect on the relationship between IR and earnings quality of companies. Man, (2021) analyzed earnings management and agency costs at the companies listed in the Shanghai Stock Exchange and reported that there was a positive significant relationship between agency

costs and earnings management at those Chinese companies in accordance with the static model. Although such a positive significant relationship was not observed in the analysis of a dynamic model, the research results indicated that earnings management could generally be affected by the agency costs of companies. Eugster, et al. (2020) analyzed the relationship between the value report and the company performance. According to their results, the companies with better value report quality would show better operating outputs in the future and obtain further economic value-added. The main idea is that managers improve their perception of the process of creating the value-added by clarifying how and why the value is created in a company, especially by considering the mutual effects of stimuli for financial and nonfinancial values. This can enable managers to make better operating decisions in the future. These findings also explained the potential advantages of the “IR” value creation. Javid *et al.* (2017) analyzed the characteristics of the agency theory through financial leverage and internal ownership. Their results indicated that investors would probably invest in companies with the long-term appropriate performance, higher levels of internal ownership, or more acceptable debts. In other words, companies like to maintain their long-term performance by reducing agency costs and protecting investors. Ji Xu-dong, et al. (2017) studied the voluntary disclosure of internal control weakness and earnings quality of different companies. They reported a significant relationship between earnings quality (optional accruals) and voluntary disclosure of internal control weakness among Chinese companies. They also indicated that earnings quality could have significant effects on internal control weakness of accounting and non-accounting variables. Khan *et al.* (2016) analyzed political communications, agency costs, and accounting quality. Their results indicated that political communications of a company would increase agency costs. Furthermore, accounting quality had a moderating role in the relationship between political communications and agency costs of the sample companies. Adelopo, (2016) analyzed the methods of voluntary disclosure among the companies listed in the Nigerian Exchange group. The results of the multivariate and univariate analyses indicated a positive significant relationship between voluntary disclosure and company size (the natural logarithm of the total asset). Moreover, corporate disclosure had negative relationships with the stock ownership percentage and the managerial stock percentage.

Eugster, et al. (2011) studied the quality of voluntary disclosure, operating performance, and stock market valuation. Analyzing 453 companies listed in Bursa Malaysia within the 1999–2007 period, they reported positive relationships between the operating performance criteria (considered the independent variable) and voluntary disclosure.

Chakroun, et al. (2012) analyzed the determinants of voluntary disclosure in the annual reports of Tunisian companies. They reported that only the companies related to mandatory disclosure would be interested in voluntary disclosure of information. According to their results, both indices of voluntary disclosure (*i.e.*, very related to mandatory disclosure and unrelated to mandatory disclosure) were affected by the mechanisms of internal governance and external governance. In fact, both alternative and supplementary governance mechanisms sometimes indicate both voluntary disclosure criteria. They realized that managerial and institutional ownerships had similar effects on the voluntary disclosure related to mandatory disclosure and unrelated disclosure. The other variables had different effects in terms of significance and intensity.

Wang, (2010) conducted an empirical analysis of the relationship between free cash flows and agency costs. According to the results, agency costs had negative significant effects on the operating performance and return on equity (ROE) of companies. By contrast, there was a positive significant relationship between free cash flows and corporate performance criteria, something which means the lack of sufficient evidence to confirm the free cash flow hypothesis.

Norouzi *et al.* (2022) used the structural equation modeling approach to analyze the relationship between financial reporting readability and agency costs through the moderating role of corporate governance. Their results indicated that improving the readability of financial reports could increase the quality of information disclosure, decrease information asymmetry, and mitigate agency costs in the end. Furthermore, financial

reporting readability would reduce agency costs of a company, whereas corporate governance would intensify the negative relationship between financial reporting readability and agency costs. Saiahi (2020) analyzed the relationship between corporate features and earnings quality at the companies of petrochemical and cement-manufacturing industries listed in the Tehran Stock Exchange. The results indicated that company size and institutional ownership had positive significant relationships with earnings quality; however, there was a negative significant relationship between financial leverage and earnings quality. The results also indicated that profitability, liquidity, and company growth had no significant relationships with earnings quality. Badavar Nahandi *et al.* (2021) studied the relationship between agency costs and adherence of costs with an emphasis on the role of corporate governance. According to their results, there was a positive significant relationship between agency costs and adherence of costs. Moreover, institutional ownership and corporate accounting reference had negative positive effects the relationship between agency costs and adherence of costs. In other words, increasing the institutional ownership and audit size can reduce the adherence of general, bureaucratic, and sales costs at companies with agency problems.

Mirzaei *et al.* (2021) analyzed the relationship of agency costs with earnings quality and abnormal return on equity at the TSE-listed companies. The data analysis results indicated that agency costs had negative significant relationships with earnings quality and abnormal ROE, something which means that abnormal REO and lack of earnings quality show negative signs in relation to agency costs. This situation cannot be favorable for a company, and agency costs increase as earnings quality and (negative) abnormal ROE decrease. Kalvani (2019) analyzed the effect of corporate governance on the relationship between earnings management and disclosure quality. The results indicated that disclosure quality had a significant effect on earnings management at the TSE-listed companies and that corporate governance improved the effect of disclosure quality on earnings management. Sheikhi *et al.* (2019) analyzed the effect of voluntary disclosure of internal control weakness on earnings quality at the TSE-listed companies and reported a negative significant effect. Yousefi (2019) studied the importance of integrating financial statement reporting at companies by using international standards in the resistive economy. According to the results, national standards can gradually be replaced by international standards with respect to the governing economic conditions. Karshenasan *et al.* (2019) analyzed the role of earnings quality in identifying the mutual financial reporting. Using the multivariate regression model and the panel data analysis with fixed effects, they reported that conservativeness had a negative significant effect on the probability of fraud and that accruals had positive significant effects on the fraud probability. Moreover, there was no significant effect between earnings smoothing and the fraud probability. Samie'i *et al.* (2016) studied the relationship between earnings quality and agency costs in the Tehran Stock Exchange. According to their findings, there was a direct significant relationship between the ratio of cash from operations to the operating earnings and agency costs. There was also a direct significant relationship between the ratio of net operating assets at the beginning of the period to the sales income and agency costs.

Research Hypotheses and Conceptual Model

Based on the explained theoretical foundations and the results of previous studies, the following hypotheses and conceptual model were developed.

1. There is a significant relationship between integrated reporting (IR) and earnings quality.
2. Agency costs have a significant effect on the relationship between integrated reporting (IR) and earnings quality of companies.

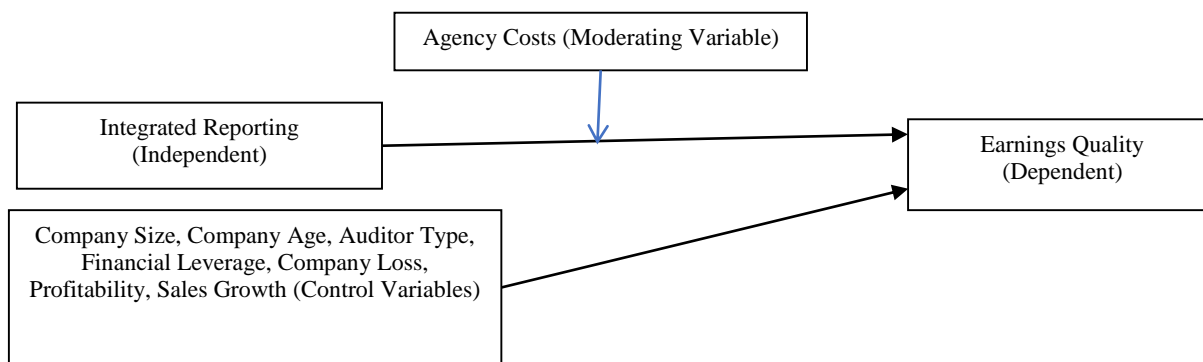


Figure 1. The conceptual research model

Research Method

This is an applied descriptive-analytical ex-post facto study. The multivariate linear regression test was employed to analyze the research hypotheses with respect to the nature of research data and information based on quantitative real data from the past. The statistical population included 636 companies listed in the Tehran Stock Exchange within the 2013–2020 period. The systematic sampling method was adopted to select 146 companies as the research sample.

Regression Equations and Research Variables

This section first introduces control, independent, and dependent variables and explains their measurement methods. After that, the regression models are presented to test the hypotheses.

Earning Quality (EQ): Following Obeng *et al.* (2020), the researcher used the model proposed by Kothari *et al.* (2009) to measure the earnings quality of companies (dependent variable). This multivariate linear model is defined as below:

$$\frac{TAC_{it}}{TA_{i,t-1}} = \beta_1 \left(\frac{1}{TA_{i,t-1}} \right) + \beta_2 \frac{(\Delta REV_{it} - \Delta REC_{it})}{TA_{i,t-1}} + \beta_3 \frac{PPE_{it}}{TA_{i,t-1}} + \beta_4 ROA_{it-1} + \varepsilon_{it} \quad (1)$$

TAC_{it} : Total accruals which equal the difference between net income and operating cash flows of company i in year t

$TA_{i,t-1}$: Total asset of company i at the beginning of the period in year t

ΔREV_{it} : Annual change in revenues of company i in year t

ΔREC_{it} : Annual change in receivable accounts of company i in year t

PPE_{it} : Properties, machinery, and equipment of company i in year t

ROA_{it-1} : The ratio of net earnings to total assets of company i at the beginning of the period in year t

ε_{it} : This parameter denotes the residual of the regression model, the absolute value of which was used as the earnings quality measurement index. Moreover, the larger values of the residual indicate the further

manipulation of managers in earnings of companies and the lower quality of reported earnings. By contrast, the smaller values of the residual indicate the higher quality of earnings. Finally, the resultant values were divided by the total assets of the company at the beginning of the period to homogenize data.

Integrated Reporting (IR): A checklist was employed to include general information, strategic information, financial information, corporate governance, and the information of social responsibility in two major corporate dimensions: financial dimensions (profitability ratios, liquidity ratios, leverage ratios, other financial ratios of a company, growth rate in profitability, explanation of current financial results and main effective factors, share price, *etc.*) and nonfinancial dimensions (information of social activities (*e.g.*, health, sports, and recreational projects), environmental information, information of ISOs and quality rewards, charity aids/sponsorship plans, *etc.*). However, the virtual variables of 0 and 1 were selected for each of these proposed indices. The value of an index is considered 1 when a company presents it; otherwise, it is considered 0. Finally, the resultant mean of all indices was used as the IR measurement criterion (Equation 2).

$$VDT\ Index_{it} = \frac{\sum X_{kti}}{M_i} \quad (2)$$

$VDT\ Index_{it}$: The integrated reporting of company i in year t

$\sum X_{kti}$: The summation of resultant scores for IR indices of company i in year t

M_i : All of the indices considered in this study (55)

Agency Costs (FCF): The moderating variable is agency costs in this study. The free cash flows (FCFs) of companies were employed to measure this moderating variable. Following the previous studies by Lehn, K., & Poulsen (1989), Li, Q. & Wang (2010), and Obeng *et al.* (2020), the researcher in this study defined the FCF of a company as the ratio of “operating incomes” minus the “summation of tax incomes, interest cost, and dividend interest of shares” divided by the “total balanced asset” of the company (Equation 3).

$$FCF_{it} = \frac{(OI_{it}) - (TI_{it} + IC_{it} + Dis_{it})}{TAS_{it}} \quad (3)$$

FCF_{it} : Free cash flow of company i in year t

TI_{it} : Tax on income of company i in year t

Dis_{it} : Dividend interest of shares at company i in year t

OI_{it} : Operating incomes of company i in year t

IC_{it} : Interest cost of company i in year t

TAS_{it} : Total balanced asset of company i in year t

Control variables: According to the results of previous studies and emphasizing the findings reported by Obeng *et al.* (2020), the researcher introduced the control variables as company size, company age, auditor type, financial leverage, company loss, profitability, and sales growth.

Company Size (SIZE): This variable equals the natural logarithm (*i.e.*, LN) of the total balanced assets of a company at the end of the fiscal year.

Company Age (AGE): This variable equals the number of years during which a company operated in the Tehran Stock Exchange or the current year minus the year in which the company was listed in the Tehran Stock Exchange.

Auditor Type (BIG): This is a virtual (dichotomous) variable which is considered 1 when the audit is conducted by the Audit Organization; otherwise, it is considered 0.

Financial Leverage (LEV): This variable equals the ratio of book value of all assets to the total balanced assets of a company at the end of the fiscal year.

Company Loss (LOSS): This is a virtual (dichotomous) variable which is considered 1 when a company reports losses during the current period; otherwise, it is considered 0.

Profitability (ROA): This variable equals the ratio of net income to the total balanced assets of a company at the end of the fiscal year.

Sales Growth (GROW): This variable denotes the ratio of changes in sales of the company (sales at the end of the current period minus the sales at the end of the previous year) to the sales at the end of the previous year.

Regression Equations:

Following Obeng *et al.* (2020), the researcher used a multivariate linear regression equation (Equation 4) to test the first research hypothesis indicating the relationship between IR and earnings quality of the TSE-listed companies based on the theoretical and empirical foundations.

$$EQ_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 SIZE_{it} + \beta_3 AGE_{it} + \beta_4 BIG_{it} + \beta_5 LEV_{it} + \beta_6 LOSS_{it} + \beta_7 ROA_{it} + \beta_8 GROW_{it} + \varepsilon_{it} \quad (4)$$

In this equation, IR_{it} and EQ_{it} denote the integrated reporting (*i.e.*, the independent variable) and the earnings quality (*i.e.*, the dependent variable), respectively. Furthermore, the effects of company size ($SIZE_{it}$), company age (AGE_{it}), auditor type (BIG_{it}), financial leverage (LEV_{it}), company loss ($LOSS_{it}$), profitability (ROA_{it}), and sales growth ($GROW_{it}$) were controlled in the model. If the significance of the coefficient of the independent variable (β_1) is confirmed in this model, it can be concluded that the first research hypothesis indicating the relationship between integrated reporting and earnings quality will be confirmed.

Following Obeng *et al.* (2020), the researcher employed a multivariate nonlinear regression model (Equation 5) to test the second research hypothesis analyzing the moderating effect of agency costs on the relationship between integrated reporting and earnings quality of companies listed in the Tehran Stock Exchange based on the theoretical and empirical foundations.

$$EQ_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 FCF_{it} + \beta_3 IR_{it} * FCF_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG_{it} + \beta_7 LEV_{it} + \beta_8 LOSS_{it} + \beta_9 ROA_{it} + \beta_{10} GROW_{it} + \varepsilon_{it} \quad (5)$$

For this purpose, the free cash flow (FCF_{it}), which also represents agency costs, was once considered an independent variables and then multiplied by integrated reporting ($IR_{it} * FCF_{it}$) in the model. The latter shows the moderating effect. Furthermore, the effects of company size, company age, auditor type, financial leverage, company loss, profitability, and sales growth were controlled in the model. If the significance of the coefficient of the moderating variable (β_3) is confirmed, it is fair to conclude that the second research hypothesis is confirmed.

The data analysis was performed in EViews based on the research theme, variables, hypotheses, and methodology to test the hypotheses and determine the relationships of variables. The initial calculations and measurements of variables were performed in Excel. In general, descriptive and inferential statistics were used for the research data analysis.

Descriptive Findings

The descriptive measures of central tendency and statistical dispersion (Table 1) were employed to analyze the general characteristics of variables collected for the research sample (146 companies) within an eight-year period (2013–2020).

Table 1. Descriptive Statistics of Research Variables

Variable	Notation	Mean	Median	Max.	Min.	SD
Earnings Quality	EQ	0.102457	0.071800	0.871992	0.00050	0.102646
Integrated Reporting	IR	0.315987	0.30991	0.800000	0.218182	0.056700
Agency Costs	FCF	0.754536	0.608183	5.773720	- 2.534404	0.672316
Company Size	SIZE	14.66896	14.47676	20.76869	10.53295	1.592211
Company Age	AGE	20.14640	18.00000	53.00000	5.000000	8.913849
Auditor Type	BIG	0.208904	0.000000	1.000000	0.000000	0.406700
Financial Leverage	LEV	0.530372	0.539775	0.986760	0.012733	0.196155
Company Loss	LOSS	0.077055	0.000000	1.000000	0.000000	0.266793
Profitability	ROA	0.149245	0.123274	0.681977	- 0.297729	0.148081
Sales Growth	GROW	0.333759	0.230736	6.555058	- 0.972221	0.542866

The integrated reporting of companies indicated that companies disclosed 31% of measures, a figure which even reached 80%. Moreover, the measures of agency costs, *i.e.*, free cash flows, accounted on average for 75% of total balanced assets of companies, the highest and lowest rates of which reached 577% and -250%, respectively. These figures indicate the paucity of cash among the studied companies. However, the findings of control variables suggested that the company size (*i.e.*, the natural logarithm of total balanced assets of a company at the end of the fiscal year), had an average rate of 14. The largest and smallest companies had the size rates of 20 and 10, respectively. According to the results from the descriptive statistics of research variables and the fact that mean and median are close in most of the variables, it can be stated that all of the research variables had an appropriate distribution.

Analysis of Results and Hypothesis Testing

The stationarity and normality of variables are first analyzed before the hypotheses are tested in accordance with the predetermined models of econometrics. The generalized Dickey–Fuller test was employed to analyze the stationarity of variables, and the unit root test results of these variables were then reported (Table 2). Since the significance level of all research variables was considered below the 5% error, it can be concluded that all variables were stationary. Moreover, the Jarque–Bera test was conducted to analyze the normality of data. According to Table (2) that indicates a significance level above 5% for all research variables, all of the designated variables had a normal distribution.

Table 2. The Results of Stationary and Normality Tests of Research Variables

Test		Generalized Dickey–Fuller		Jarque–Bera	
Variable	Notation	Test Statistic	Significance Level	Test Statistic	Significance Level
Earnings Quality	EQ	-23.94779	0.0000	1.705950	0.426145
Integrated Reporting	IR	-17.53324	0.0000	5.703095	0.057755
Agency Costs	FCF	-12.15647	0.0000	1.546042	0.461616
Company Size	SIZE	-12.63821	0.0000	1.100584	0.576781
Company Age	AGE	-8.786266	0.0000	3.838437	0.175248
Auditor Type	BIG	-27.62491	0.0000	5.548458	0.062398
Financial Leverage	LEV	-14.01905	0.0000	5.127818	0.077003
Company Loss	LOSS	-11.71666	0.0000	1.014686	0.602093
Profitability	ROA	-10.65345	0.0000	3.210853	0.225848
Sales Growth	GROW	-14.05413	0.0000	2.34972	0.27573

Testing the First Hypothesis

To test the first hypothesis, Regression Equation (4) should be fitted. For this purpose, it is first necessary to conduct the Chow (F-Limer) test to select from the ordinary panel data models as opposed to the panel data model with fixed effects. Table (3) reports the results of Chow and Hausmann tests, according to which the selected model was proportionate to the panel data with fixed effects.

Table 3. The Results of Chow and Hausmann Tests

Test	Test Statistic	Degree of Freedom	Significance Level	Result
Chow (F-Limer)	3.584209	(145.1014)	0.0000	Panel
Hausmann	54.427424	8	0.0000	Fixed Effects

In this study, the Durbin–Watson test was employed to analyze autocorrelation, whereas the Breusch–Pagan test was conducted to determine the presence of inconsistency in the variance of error components in the model. Table (4) reports the results of autocorrelation and variance inconsistency tests.

Table 4. The Results of Durbin–Watson and Breusch–Pagan Tests

Test	Test Statistic	Significance Level
Durbin–Watson	2.098277	-
Breusch–Pagan	3.784718	0.8760

According to the results, the values of the Durbin–Watson test range between 1.5 and 2.5, something which indicates the absence of autocorrelation in the model. Since the results of the Breusch–Pagan test were above 5%, the error components had variance consistency.

Given the results of the initial pretests (stationarity and normality of distributions of variables), Equation (4) was implemented to test the first hypothesis indicating the relationship between integrated reporting and earnings quality (Table 5). According to Table 5, the following points are presented.

Calculated to evaluate nonlinearity of the independent variables, the values of variance inflation factor (VIF) was reported below the critical value of 10, a rate which indicates the lack of severe linearity among these variables. Therefore, it can be concluded that the accuracies of impact factors of independent variables were not affected by the internal relationships of these variables. According to the measures of the model

goodness-of-fit, it is observed that the value and significance level of F statistic is less than 0.05 and indicates the significance of the estimated regression model. Finally, the adjusted coefficient of determination indicated that more than 33% of changes in the earnings quality at the TSE-listed companies were explained by the proposed independent and control variables.

Table 5. The Results of Estimating the First Regression Model

$EQ_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 SIZE_{it} + \beta_3 AGE_{it} + \beta_4 BIG_{it} + \beta_5 LEV_{it} + \beta_6 LOSS_{it} + \beta_7 ROA_{it} + \beta_8 GROW_{it} + \varepsilon_{it}$					
Variable	Notation	Coefficient	t-Statistic	Significance	VIF
Constant	C	-0.387227	-3.979855	0.0001	-
Integrated Reporting	IR	0.194345	2.610885	0.0090	1.043222
Company Size	SIZE	0.026800	3.274672	0.0011	1.135648
Company Age	AGE	-0.000947	-0.498293	0.6184	1.059354
Auditor Type	BIG	-0.009858	-0.605340	0.5451	1.115685
Financial Leverage	LEV	0.089501	3.130534	0.0018	1.589588
Company Loss	LOSS	0.029773	2.388230	0.0171	1.246792
Profitability	ROA	0.293120	8.973840	0.0000	1.984535
Sales Growth	GROW	0.003984	0.726141	0.4679	1.112798
Adjusted Coefficient of Determination		0.333107			
F-Statistic		4.809850			
Significance		0.000000			

The significance level of the independent variable (*i.e.*, IR) was estimated below the error rate of 5%; hence, it can be concluded that there was a significant relationship between integrated reporting and earnings quality at the TSE-listed companies. Moreover, the estimated positive coefficient of IR indicates the fact that increasing the IR improved earnings quality at those companies (*i.e.*, the first research hypothesis is confirmed). In addition, increasing the IR of a company by one unit will increase its earnings quality by nearly 0.19 units.

According to the significance level or P-value estimated below 5%, it is concluded that the earnings quality had significant relationships with company size (SIZE), financial leverage (LEV), profitability (ROA), and company loss (LOSS) at the TSE-listed companies. Moreover, the estimated positive coefficients of these variables indicate that increasing company size (SIZE), financial leverage (LEV), and profitability (ROA) would improve the earnings quality of a company. In addition, the significance level or P-value of sales growth (GROW), company age (AGE), and auditor type (BIG) was estimated above the error rate of 5%. Thus, earnings quality had no significant relationships with these three control variables at the TSE-listed companies.

Testing the Second Hypothesis

Regression Equation (5) was fitted to test the second hypothesis. For this purpose, it is first necessary to conduct the Chow (F-Limer) test to select a model proportionate to the collected data and calculated variables. According to the results of Chow and Haussmann tests (Table 6), the panel data model with fixed effects was used.

Table 6. The Results of Chow and Haussmann Tests

Test	Test Statistic	Degree of Freedom	Significance Level	Result
Chow (F-Limer)	3.586222	(145.1012)	0.0000	Panel
Haussmann	56.075842	10	0.0000	Fixed Effects

In this study, the Durbin–Watson test was employed to analyze autocorrelation of independent variables, whereas the Breusch–Pagan test was conducted to determine the variance inconsistency. According to Table

(7), the Durbin–Watson statistic was reported 2.104 (sanding between 1.5 and 2.5), a rate which indicates the lack of autocorrelation in the model. Moreover, the results of the Breusch–Pagan test indicated that the significance level was above 5%; therefore, the error components had variance consistence.

Table 7. The Results of Durbin–Watson and Breusch–Pagan Tests

Test	Test Statistic	Significance Level
Durbin–Watson	2.104050	-
Breusch–Pagan	6.423455	0.7785

Hence, after the initial tests (stationarity and normality of distributions of variables) were conducted, Equation (5) was employed to test the second hypothesis indicating the moderating effect of agency costs on the relationship between integrated reporting and earnings quality of companies (Table 8). According to Table (8), the following points are presented:

The Fisher statistic had a significance value below 5%; therefore, the fitted model had sufficient reliability. The adjusted coefficient of determination was equal to 33.8%, a rate which indicates that the independent and control variables in the model managed to explain 33.8% of changes in changes of the dependent variable.

Table 8. The Results of Estimating the Second Regression Model

$EQ_{it} = \beta_0 + \beta_1 IR_{it} + \beta_2 FCF_{it} + \beta_3 IR_{it} * FCF_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 BIG_{it} + \beta_7 LEV_{it} + \beta_8 LOSS_{it} + \beta_9 ROA_{it} + \beta_{10} GROW_{it} + \varepsilon_{it}$					
Variable	Notation	Coefficient	t-Statistic	Significance	VIF
Constant	C	-0.379043	-3.660216	0.0003	-
Integrated Reporting	IR	-0.105946	-2.282806	0.01999	2.567416
Agency Costs	FCF	-0.051814	-2.109434	0.0352	3.667558
IR*Agency Costs	IR*FCF	0.204631	2.790273	0.0054	5.584161
Company Size	SIZE	0.031088	3.610487	0.0003	1.148676
Company Age	AGE	-0.001711	-0.869893	0.3846	1.064988
Auditor Type	BIG	-0.013391	-0.823080	0.4107	1.119010
Financial Leverage	LEV	0.079458	2.733571	0.0064	1.712767
Company Loss	LOSS	0.028854	2.315898	0.0208	1.253064
Profitability	ROA	0.275495	8.145841	0.0000	2.007296
Sales Growth	GROW	0.002216	0.390820	0.6960	1.164541
Adjusted Coefficient of Determination		0.338184			
F-Statistic		4.847294			
Significance		0.000000			

The resultant significance level of the moderating variable (integrated reporting*agency costs, *i.e.*, IR*FCF) was below the error rate of 5%; therefore, it can be concluded that agency costs had a significant effect on the relationship between integrated reporting and earnings quality at the TSE-listed companies. Moreover, the resultant coefficient of the moderating variable (IR*FCF) was positive; thus, the effect was direct. In other words, increasing agency costs increased earnings manipulation and decreased earnings quality of companies within the studied period (*i.e.*, the second hypothesis was confirmed). In fact, increasing the moderating variable (IR*FCF) by one unit would increase earnings quality by 0.205 units.

Discussion and Conclusion

With the ever-increasing needs for information regarding the operations of businesses, the conventional method of presenting financial statements will not meet all needs of users. Not only does conventional financial reporting fail to provide comprehensive information to respond to business activities, it cannot also present the economic performance and business value of a company sufficiently and appropriately. Given the growing competition in the global business arena, it is essential to use integrated reporting that should both be fluent and simple and facilitate decision-making for users by including all organizational

dimensions. Hence, this study analyzed the relationship between integrated reporting and earnings quality with respect to the moderating effect of agency costs at the companies listed in the Tehran Stock Exchange. For this purpose, two hypotheses were introduced and then described through the regression analysis.

The results of the first research hypothesis confirmed the presence of a positive relationship between integrated reporting and earnings quality at the TSE-listed companies. In fact, increasing the integrated reporting was considered a positive sign of accountability and transparency in financial reporting on the part of companies. As a result, investors place more trust in the company, something which can reduce the information asymmetry between internal and external individuals. Finally, these companies will have much higher levels of earnings quality than the other companies. Furthermore, the presence of integrated reporting can mitigate the agency conflicts because, as the agency theory states, managers use higher-quality financial reports to draw support and reduce agency conflicts. This can both decrease agency costs and increase earnings quality of companies. In this regard, Leuz and Verrecchia (2000) analyzed the relationship between the quality of financial reporting and the investment efficiency. According to their results, companies start disclosing further information to increase liquidity and decrease information asymmetry between themselves and investors. In addition, the lack of information asymmetry between a company and investors can reduce the share price and increase the capital cost. Therefore, the research results indicated that there was a significant relationship between the quality of financial reporting and the investment efficiency. Saiahi (2020) stated that different factors such as company size and institutional ownership would affect the earnings quality of a company. In addition, Karshenasan *et al.* (2019) concluded that accounting conservativeness could reduce fraud and that accruals would increase financial fraud of companies, thereby affecting the earnings quality. According to Galai *et al.* (1976), external support and internal control affect the market value through integrated reports. Moreover, Ji *et al.* (2017) indicated that there was a significant relationship between earnings quality and the voluntary disclosure of internal control weakness of companies. According to the literature review, the results of this study were consistent with the findings reported by Saiahi (2020), Karshenasan *et al.* (2019), Leuz and Verrecchia (2000), Galai & Masulis. (1976), and Ji *et al.* (2017).

The results confirmed the second hypothesis indicating the moderating effect of agency costs on the relationship between integrated reporting and earnings quality at the TSE-listed companies. In this regard, it can be stated that the agency problems of companies are considered to play a central role in corporate decision-making and can also affect many factors, an instance of which is the investment risk. Agency costs have inverse effects on the company value; in other words, the company value decreases if the market expects the emergence of such costs. Therefore, decreasing the company value (*i.e.*, wealth of shareholders) and share price will increase the risks of shareholders, which must be considered and reduced at companies. At the same time, as the free cash flows increase, managers become more willing to make investments and guarantee the future profitability of companies, although shareholders are more interested in receiving further earnings. This can increase agency conflicts and reduce earnings quality at companies. In this regard, Victoria Obeng *et al.* (2020) analyzed the role of agency costs in the relationship between integrated financial reporting and earnings quality. According to their results, there is a significant relationship between integrated financial reporting and earnings quality, and agency cost affects this relationship. Samie'i *et al.* (2016) stated that there was a significant relationship between agency costs and earnings quality of companies. Tran *et al.* (2020) analyzed the effect of financial corruption on the relationship between agency costs and dividend policies. Reporting a significant relationship between agency costs and dividend policies, they indicated that financial corruption affected this relationship. Moreover, Wang *et al.* (2010) indicated that the quality of financial reporting had negative significant correlations with overinvestment and underinvestment. According to Man, (2021), increasing agency costs increased the earnings management of Chinese companies. The results of this study are consistent with the findings reported by Samie'i *et al.* (2016), Galai & Masulis (1976), Leuz and Verrecchia (2000), Tran *et al.* (2020), Obeng *et al.* (2020), and Man, (2021). Since the two research hypotheses were confirmed, managers and policymakers are recommended to adopt appropriate policies and tools to mitigate agency costs at

companies in order to provide everyone with access to information. As a result, the information asymmetry would decrease, and investors would be encouraged to make investments because they would be able to make decisions consciously, and the investment efficiency would also improve. With the ever-increasing growth of informational needs to analyze the operations of businesses and meet all needs of users of financial and nonfinancial reports, it is essential to change the conventional methods of reporting in order to formulate integrated reports and improve earnings quality.

Data availability

Data used in this paper are available from public sources identified in the study.

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

- Adelopo, I. (2016). Auditor independence: auditing, corporate governance and market confidence. Routledge. <https://doi.org/10.4324/9781315568300>.
- Barth, M. E., Cahan, S. F., Chen, L., & Venter, E. R. (2017). The economic consequences associated with integrated report quality: Capital market and real effects. *Accounting, Organizations and Society*, 62, 43-64. <https://doi.org/10.1016/j.aos.2017.08.005>
- Bernardi, C., & Stark, A. W. (2018). Environmental, social and governance disclosure, integrated reporting, and the accuracy of analyst forecasts. *The British accounting review*, 50(1), 16-31. <https://doi.org/10.1016/j.bar.2016.10.001>.
- Bushman, R.M. and Smith, A.J. (2001) Financial Accounting Information and Corporate Governance. *Journal of Accounting and Economics*, 32, 237-333. [http://dx.doi.org/10.1016/S0165-4101\(01\)00027-1](http://dx.doi.org/10.1016/S0165-4101(01)00027-1)
- Chakroun, R., & Matoussi, H. (2012). Determinants of the extent of voluntary disclosure in the annual reports of the Tunisian firms. *Accounting and Management Information Systems*, 11(3), 335. http://online-cig.ase.ro/RePEc/ami/articles/11_3_2.pdf
- Christensen, H. B., Lee, E., Walker, M., & Zeng, C. (2015). Incentives or Standards: What Determines Accounting Quality Changes around, Symposium on International Accounting Research, Pages 31-6. <https://doi.org/10.1080/09638180.2015.1009144>.
- Core, J. E. (2001). A review of the empirical disclosure literature: discussion. *Journal of accounting and economics*, 31(1-3), 441-456. [http://dx.doi.org/10.1016/S0165-4101\(01\)00036-2](http://dx.doi.org/10.1016/S0165-4101(01)00036-2).
- Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of accounting and economics*, 50(2-3), 344-401. <https://doi.org/10.1016/j.jacceco.2010.09.001>.
- DeFond, M. L. (2010). Earnings quality research: Advances, challenges and future research. *Journal of Accounting and Economics*, 50(2-3), 402-409. <https://doi.org/10.1016/j.jacceco.2010.10.004>.
- Eccles, R. G., & Krzus, M. P. (2010). One report: Integrated reporting for a sustainable strategy. Hoboken, New Jersey: John Wiley & Sons. ISBN-13: 978-0470587515
- Eisenhardt, K. (1989), "Building theories from case study research", *Academy of Management Review*, Vol. 14 No. 1. <https://doi.org/10.2307/258557>
- Eugster, F., & Wagner, A. F. (2011). When and how is voluntary disclosure quality reflected in equity prices. Swiss Finance Institute Research Paper, (11-15). https://www.nccr-finrisk.uzh.ch/media/pdf/wp/WP701_B1.pdf
- Eugster, F., & Wagner, A. F. (2020). Value reporting and firm performance. *Journal of International Accounting, Auditing and Taxation*, 40, 100319. <https://doi.org/10.1016/j.intaccudtax.2020.100319>
- Galai, D., & Masulis, R. W. (1976). The option pricing model and the risk factor of stock. *Journal of Financial economics*, 3(1-2), 53-81. [https://doi.org/10.1016/0304-405X\(76\)90020-9](https://doi.org/10.1016/0304-405X(76)90020-9)
- Badavar Nahandi, Younes Hashemzadeh, Hadi; (2021). *Analyzing Relationship between Agency Costs and Adhesion of Costs with an Emphasis on Role of Corporate Governance*, the First International Conference on Challenges and Novel Solutions to Industrial Engineering, Management, and Accounting, pp. 1-39. <https://civilica.com/doc/1045591>.
- International Integrated Reporting Council (IIRC). (2013). Integrated reporting: The IIRC. Available at: <http://www.theiirc.org/>.
- International Integrated Reporting Council (IIRC). (2011). Discussion Paper: Towards Integrated Reporting – Communicating Value in the 21st Century. Available at: http://theiirc.org/wpcontent/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf.
- Javid, H. M., & Javid, S. (2017). Determining agency theory framework through financial leverage & insider ownership. *International Journal of Economics and Finance*, 9(3), 21-28. DOI:10.5539/ijef.v9n3p21
- Ji Xu-dong, Wei Lu, Wen Qu (2017), Voluntary Disclosure of Internal Control Weakness and Earnings Quality: Evidence from China, *The International Journal of Accounting*, Elsevier, vol. 52(1), pages 27-44. DOI: 10.1016/j.intacc.2017.01.007
- Jiraporn, P., Miller, G. A., Yoon, S. S., & Kim, Y. S. (2008). Is earnings management opportunistic or beneficial? An agency theory perspective. *International Review of Financial Analysis*, 17(3), 622-634. <https://doi.org/10.1016/j.irfa.2006.10.005>

- Kalvani, Sirus (2019). Analyzing Effect of Corporate Governance on Relationship between Earnings Management and Disclosure Quality, the Fourth National Conference on Novel Approaches to Education and Research, pp. 1–10. <https://civilica.com/doc/981876>
- Khan A., Mihret, D., Muttakin, M., (2016), Corporate political connections, agency costs and audit quality, *International Journal of Accounting & Information Management*, 24(4) 357 – 374. <https://doi.org/10.1108/IJAIM-05-2016-0061>
- Kothari, S.P., Shu, S. and Wysocki, P.D. (2009). Do Managers Withhold Bad News?. *Journal of Accounting Research*, 47: 241-276. <https://doi.org/10.1111/j.1475-679X.2008.00318.x>
- Lehn, K., & Poulsen, A. (1989). Free cash flow and stockholder gains in going private transactions. *the Journal of Finance*, 44(3), 771-787. <https://doi.org/10.1111/j.1540-6261.1989.tb04390.x>
- Leuz, C. and Verrecchia, R. (2000), The Economic Consequences of Increased Disclosure, *Journal of Accounting Research* 38, 91-124. <http://dx.doi.org/10.2307/2672910>
- Li, Q., Wang, T. (2010). Financial reporting quality and corporate investment efficiency: Chinese experience. *Nankai Business Review International*, 1 (2): 197-213. <https://doi.org/10.1108/20408741011052591>
- Karshenasan, A., Bahraminasab, A., mamsholi, R. (2019). Earnings Quality and Identification of Fraudulent Financial Reporting. *Empirical Research in Accounting*, 9(1), 314-339. doi: 10.22051/jera.2018.17041.1766
- Man, Y. (2021). Earnings management and agency costs: Is China different?. *Journal of Corporate Accounting & Finance*, 32(1), 13-30. <https://doi.org/10.1002/jcaf.22481>
- Mirzaei, Hamid Reza; Najmi, Nazila; Mohsenzadeh Yazdi, Reyhaneh; Ben Shams, Parisa (2021). Analyzing Relationship of Agency Costs with Earnings Quality and Abnormal ROE at Companies Listed in Tehran Stock Exchange, the Second Conference on Industrial Engineering, Economics, and Management, pp. 1–12. <https://civilica.com/doc/1114293>
- Norouzi, Mohammad, Azinfar, Kaveh, Abbasi, Ebrahim, Dadashi, Iman (2021). Modeling the moderating role of corporate governance in the relationship between Financial Reporting Readability and Agency Cost, *Journal of Financial Management Strategy*, 9(2), 201-223. magiran.com/p2294915
- Obeng, V. A., Ahmed, K., & Miglani, S. (2020). Integrated reporting and earnings quality: The moderating effect of agency costs. *Pacific-Basin Finance Journal*, 60, 101285. <https://doi.org/10.1016/j.pacfin.2020.101285>
- Panfilo, S., Adhikari, A., & Ionici, O. (2022). Integrated Report and Credit Risk: Empirical Evidence from a Mandatory Integrated Reporting Setting. In *Risk Management* (pp. 247-262). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-88374-4_11
- Paolucci, G, Cerioni, E (2018), Integrated Reporting and Italian Companies: An Empirical Investigation, *International Journal of Business and Management*; Vol. 12, No. 9, PP.221 – 230. : <https://doi.org/10.5539/ijbm.v12n9p221>
- Paternostro, S. (2013). The connectivity of information for the integrated reporting. In *Integrated reporting* (pp. 59-77). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-319-02168-3_4
- Pergola, T. M. (2006). Management entrenchment, corporate governance, and earnings quality. Nova Southeastern University. School of Business and Entrepreneurship, UMI Number: 3217980.
- Safarzadeh, Mohammad Hossein (2014). Earnings Quality and Its Measurement Criteria, *Accounting Research*, No. 9, pp. 1–21. <https://ensani.ir/fa/article/327769/>
- Samie'i, Mohammad; Mahmudzadeh (2016). Analysis of Relationship between Earnings Quality and Agency Costs in Tehran Stock Exchange, the First International Conference on Accounting, Economics, and Banking, pp. 1–33. <https://civilica.com/doc/464979>
- Sheikhi, Mina; Valizadeh, Adelshah; Fayaz Azad, Parinaz (2019). Analyzing Effect of Voluntary Disclosure of Internal Control Weakness on Earnings Quality at Companies Listed in Tehran Stock Exchange, the Fourth National Conference on Management, Accounting, and Economics with an Emphasis on Regional and Global Marketing, pp. 1–20. <https://civilica.com/doc/915153>.
- Saiahi, Yousef (2020). Analyzing Corporate Features and Earnings Quality at Companies Listed in Tehran Stock Exchange (Case Study: Petrochemical and Cement-Manufacturing Industries), the First International Conference on Challenges and Novel Solutions to Industrial Engineering, Management, and Accounting, pp. 1–10. <https://civilica.com/doc/1045360>
- Tran, L. T. H. (2022). Reporting quality and financial leverage: Are qualitative characteristics or earnings quality more important? Evidence from an emerging bank-based economy. *Research in International Business and Finance*, 60, 101578. <https://doi.org/10.1016/j.ribaf.2021.101578>
- Tran, Q. T. (2020). Corruption, agency costs and dividend policy: International evidence. *The Quarterly Review of Economics and Finance*, 76, 325-334. <https://doi.org/10.1016/j.qref.2019.09.010>
- Wang, G.Y.(2010), The Impacts of Free Cash Flows and Agency Costs on Firm Performance, *Journal of Service Science & Management*, No. 3, pp. 408-418. [https://doi.org.10.4236/jssm.2010.34047](https://doi.org/10.4236/jssm.2010.34047)
- White, A. L. (2005). New wine, new bottles: the rise of non-financial reporting. *Business for Social Responsibility Business Brief*, 6, 1–6. businesswire.com
- Yousefi, Kosar (2019). Analyzing Importance of Integrating Financial Statement Reporting of Companies through International Standards in Resistive Economy, the Fourth National Conference on Management, Accounting, and Economics with an Emphasis on Regional and Global Marketing, pp. 1–10. <https://civilica.com/doc/915374>
- Zhou, S., Simnett, R., & Green, W. (2017). Does integrated reporting matter to the capital market? *Abacus*, 53(1), 94-132. <https://doi.org/10.1111/abac.12104>.