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Compilation of the Model of Favorable Influencing Factors on the Readability of the Auditor's Report in Iran

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ABSTRACT

One of the effects of the improvement in financial information disclosure systems in the capital markets is that the information disclosed in the annual reports includes many specialized terms and special notes as well as non-financial information, which has made them more complicated and incomprehensible. In this regard, the length of financial and audit reports has been increasing, and in this sense, the readability of these reports has emerged as a difficult problem, especially in today's era, we are facing an information explosion; Therefore, the economic effects of the readability of financial and audit reports have attracted the attention of legislators and researchers alike. Therefore, the purpose of this research is to develop a model of factors that positively influence the readability of the auditor's report in Iran. The investigated mechanisms include the risk management committee, political communication, and institutional shareholders, and the fog index was also used to measure the readability of the auditor's report. The statistical population of the research, after applying the desired restrictions, the number (1030 observation year-company) was selected in the time period of 2011 to 2020. The results of the research showed that the first and third dimensions (risk management committee and institutional shareholders) are effective in the readability of the auditor's report. These findings have important perspectives for various stakeholders such as the government, legislative and regulatory bodies, companies, and researchers. Based on this, it is suggested to the audit organization and the Tehran Stock Exchange Organization take the necessary measures regarding the formulation of rules and standards for the readability of audit and financial reports.

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1. Introduction

Traditionally, the risk management function, which includes credit risk management, asset management activities, and financial reporting quality assurance, has been performed by the audit committee, but some believe that because companies have broader operational risks, both financial and non-financial, and it is possible that the required technical ability exceeds the scope of the audit committee, so independent risk committees are needed (Olobo et al., 2021). On the other hand, some evidence shows that the audit committee does not have enough expertise in risk management. Therefore, it can be claimed that due to the increase in the complexity of business models, risk management is no longer solely the duty of the audit committee (Singh, 2021). Risk management (RM) has grown rapidly in organizations over the last two decades with shareholders, regulators, professional bodies and rating agencies pushing for better corporate governance, risk management and internal control (Qi & Yuan, 2023). In the wake of large business scandals and financial crisis there has been an increased interest in corporate governance issues leading governments worldwide to suggest new legislation and recommendations for more transparency, accountability and manageability. However, the role of RM is not only seen as a compliance function protecting shareholder value, but also as a positive force for creating value. The logic of the value proposition of RM is that it leads to improved firm performance through better decision-making (Seidu et al., 2020).

RM is still a relatively new phenomenon and few studies have examined how risk managers influence decision processes in organizations. From previous studies, we can learn that integration with other management control systems (Fan & Xu, 2022), toolmaking and interpersonal connections (Feng Hsieh & Brennan, 2023), control of the risk-information flow (Alqudah et al., 2023) and calculative cultures (Laux et al., 2021) can help explain differences in risk manager's influence in the organization. However, from these studies we still don't know the processes through which risk

managers influence decision-making in organizations, which will be the aim of this study.

Previous research on influencing others has mainly adopted a unidirectional focus on influence. It has examined how top management influences an organization through sensegiving (Zhang & Smith, 2023), how middle managers influence the levels above them (Henriques et al., 2023), how social movements influence certain actors (Halalisan et al., 2023), and how accounting figures influence decision makers (Ding & Wei2023). Auditors and their clients sometimes have different views on preparing financial information. Auditors believe that constraining management's accounting choices facilitates the audit and potentially reduces their litigation and regulatory costs, whereas clients prefer discretion so they can report information that captures underlying economic transactions. However, such discretion can confound verifiability and undermine the reliability of financial information. Professional bodies consistently remind auditors to carefully consider current accounting standards that offer managers considerable discretion in applying the standard in the preparation of the financial statements (American Institute of Certified Public Accountants (AICPA), 1983, American Institute of Certified Public Accountants (AICPA), 1997). Accordingly, managers and auditors may differ in their interpretation and application of accounting standards, particularly when the standard affords greater flexibility in accounting choices. In sum, auditors may face higher audit risk as the seemingly more flexible accounting standards may offer managers more leeway in managing earnings (Smith, 2023).

Whereas it is important to consider managerial financial reporting discretion in audit risk assessment, there is limited academic research providing evidence to support this conjecture. Few archival studies have examined the impact of the degree of clients' accounting choices on auditors' risk assessment. One potential explanation is that the empirical proxy of managerial financial reporting discretion is the outcome of negotiations between the auditor and client. For instance, the firm-level

accounting flexibility measures noted in the prior literature, such as net operating assets are the joint products of both auditors and managers. Also, these empirical measures are directly related to managerial misreporting incentives, which are endogenously determined by the clients' corporate governance systems (Chen et al., 2023).

With this brief introduction, the purpose of this research is to develop a model of factors that positively influence the readability of the auditor's report in Iran. The investigated mechanisms include the risk management committee, political communication, and institutional shareholders, and the fog index was also used to measure the readability of the auditor's report.

In this regard, the sections of this article include the following:

A review of research literature focused on favorable influencing factors on the readability of the auditor's report; examining the stages of conducting the research method; data analysis; Research findings and evaluation; discussion and conclusion and comparison of the findings of this article with previous researches; presenting suggestions and research limitations.

2. Theoretical frameworks and Literature Review

1-2- Financial Reporting Risk and Quality Committee

In recent years, risk management has increasingly become a well-known issue among companies and media; however, limited scientific literature is currently available (Yanenkova et al., 2021). The financial support committee of Treadway Commission organizations introduced the integrated model of risk management, which shows the various achievements of risk management for organizations. Risk management offers a more integrated approach to risk management, which evaluates which risks should be reduced and which should be accepted based on the company's risk tolerance and strategy. Scientific research shows strong evidence that good corporate governance practices lead to better information disclosure. Therefore, it is expected that the risk committee as a tool for good corporate governance will increase risk disclosure despite the risk committees (Drobnyazko et al., 2020).

On the other hand, the quality of financial reporting in the financial markets is one of the topics of interest of the participants (stakeholders) in the market, according to which information is prepared, published and used for the purposes of capital allocation (investment decisions that are forward-looking). On the other hand, the primary purpose of providing accounting information and financial reporting in the capital market is to help the stakeholders make more reliable decisions and judgments. Because, higher quality reports lead to higher quality and more useful decisions and judgments for the users (beneficiaries) and the secondary goal of the quality of the reported information is to send a message to the participants in the production and dissemination of information; how well they perform their duties (Krkoska et al., 2019). While the existence of the risk committee is optional, in practice, the proponents argue that the risk committees strengthen the board's risk monitoring because this committee They provide dedicated resources for the continuous assessment of acceptable risk and the amount of existing risk (risk profile) of the company and validate the company's internal controls around risk management (Moore and Braunis, 2008). Meanwhile, opponents of this concept argue that the risk committee disrupts the overall ability of the board of directors to fully integrate risk assessment in its oversight of the company's strategies and operations at the overall level. Existing research shows that audit committees are responsible for overall risk monitoring (Yan et al., 2021). Allen & Luciano (2019) suggest that the existence of a risk committee parallel to an operational audit committee is necessary because audit committees may not have enough skills and time to carry out their tasks regarding risk assessment. However, audit committees have many responsibilities regarding the focus on financial reporting, and therefore expanding the role of the audit committee may be a heavy responsibility (Allen & Luciano, 2019).

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While the existence of a risk committee is optional, in practice, proponents argue that risk committees strengthen the board's risk oversight because these committees dedicate dedicated resources to the ongoing assessment of acceptable risk and the amount of risk available (risk profile) of the company. Provide and validate the company's internal controls around risk management. Meanwhile, opponents of this concept argue that the risk committee disrupts the overall ability of the board of directors to fully integrate risk assessment in its oversight of the company's strategies and operations at the overall level. Existing research shows that audit committees

are responsible for overall risk monitoring (Jackson et al., 2021). Chun et al suggest that the existence of a risk committee parallel to an operational audit committee is necessary because audit committees may not have enough skills and time to carry out their tasks regarding risk assessment. However, audit committees have many responsibilities regarding the focus on financial reporting, and therefore expanding the role of the audit committee may be a heavy responsibility (Chun et al., 2020).

3-2- Expected advantages and disadvantages of audit report readability

The expected advantages and disadvantages of the auditor's report readability should be considered in line with its dual nature. On the one hand, the readability of the audit report may be considered as a type of supplementary information in the audit report. This concept expresses the advantage of the audit report's readability through its information content, which is measured in empirical studies based on capital market reactions. On the other hand, the readability of the auditor's report can be seen as a new procedure for auditors. This concept also expresses the advantages and disadvantages of audit report readability in concepts such as audit quality, cost, or efficiency (Boateng, 2019).

There are also some weaknesses to consider when using readability metrics. For example, the variables that affect these formulas, such as sentence length, word length, etc., are not always consistent with the elements that affect text comprehension. In addition, readability formulas cannot predict how the reader will understand, comprehend, or understand a particular text. Additionally, the difference between readability and comprehensibility should also be considered. According to most readability measures, the longer the word (the more syllables it has), the more difficult the word will be. However, this is not always the case. This means that a spontaneous increase in word length does not mean that the word will be more difficult to understand. Ekinçi & Poyraz (2019) also found that readability measures have important limitations. The most important of them

is that they do not measure the higher level text organization of the written content. If you randomly rearrange the sentences of a text, you can effectively make the text unintelligible. However, this does not change the level of readability of the text because the difficulty of vocabulary and sentence complexity are not changed (Ekinci & Poyraz, 2019).

Readability criteria have important limitations. They argued that readability criteria ignore the features of the text's nature that affect comprehensibility. Furthermore, he adds that formulas have nothing to do with paragraph length, punctuation, and text structure, which are all elements that affect readability (Ekinci & Poyraz, 2019).

-Odubuasi (2022) in their article titled: "Risk Committee Effectiveness and Financial Performance Indicator of Quoted Firms in Selected African Countries" concluded that the effect of RCE diligence and RCE compositions on bank performance in Nigeria, South Africa and Ghana is highly significant statistically at 5% level. Hence, the study concludes that RCE vis-à-vis risk committee diligence, committee compositions and leverage factors should be pivotal to the formulation of risk management committee of organisations.

-Alduais (2022) in his research titled: "Textual analysis of the annual report and corporate performance: evidence from China" showed that firms with better financial reporting readability are more profitable, incur lower agency costs and have low earnings in the Chinese stock markets when readability is low (i.e. more complexity and length of annual reports). It was also found that when a listed company has a good performance, it prefers to use a short space to explain its operating and financial status. More generally, the means of the report length are short, and accounting terms are used less frequently; in the case of a poor company, the annual report is particularly long and accounting terms are more frequently used. In the context of the COVID-19 crisis, this study served as a proxy measure of returns prior to the announcement of the COVID-19 pandemic. In addition, an instrumental variable approach is used, which helps results to remain robust and control for fixed effects and potential endogeneity problems.

- Gou (2022) in his article titled: "Audit Committee Disclosure Tone and Corporate Violations in China: Textual Analysis" concluded that better readability of the text aggravates the negative relationship between the tone of text disclosure and violations. The path analyses show that audit committees predict corporate violations by affecting internal control quality and auditors' opinions. The results suggest that disclosure of audit committee reporting improves transparency in the activities of audit committees, which plays a positive governance role in indicating corporate violations. Meanwhile, the study provides a reference for further reform of audit committee information disclosure.
- Yanenkova et al (2021) in their article titled: "Modeling of Bank Credit Risk Management Using the Cost Risk Model" showed that forecast the increased risk of loan default at an early stage in the process of monitoring the loan portfolio and model forecasting changes in the degree of credit problematicity on change of indicators. A methodology is proposed for the analysis and forecasting of indicators of troubled loan debt, which should be implemented as software and included in the decision support system during the process of monitoring the risk of the bank's credit portfolio.
- Jayasree et al (2020) in research titled: "Readability of Annual Reports and Operating Performance of Indian Banking Companies" argued that application of readability index in case of banking companies in an emerging economy in association with performance is the contribution of this paper. An assessment of the readability of annual reports is an interesting topic for research to better understand the recent negative developments in Indian banking industry such as high non-performing assets, continuously declining return on assets, sharp increase in banking frauds and poor governance.

3. Methodology

1-3- Society and statistical sample of the research

According to the ease of access and reliability of audited financial information, the current research has used the Tehran Stock Exchange

market as the statistical population of the research. In this regard and in order to determine the statistical sample, the following 5 criteria are considered and if a company meets all the criteria, it is selected as the research sample and the rest of the companies are removed:

1. The company was admitted to the stock market before 2011 and should be active in the stock market until the end of 2020;
2. Due to the specific nature of the activities of holding companies, insurance, leasing, banks, financial and investment institutions and their significant difference from manufacturing and trading companies, the chosen company should not be other than the mentioned companies;
3. From the perspective of increasing comparability, the financial year of the company should end on March 29 and the financial year should not change during the research period;
4. The shares of the companies have been traded during each of the years of the research period;
5. Financial information of companies should be available

Table 1. Describes the general process of selecting the research sample

Description	Number of companies	Number of Year-Company	Percentage of the total statistical population
All companies of the statistical society	560	5040	100
Inactive companies or removed from the stock market	198	1782	35.36
Companies with change of financial year and suspension of operations	13	117	2.32
Companies without required financial information	169	1521	30.17
Companies active in financial intermediation, insurance, banking and investment industries	58	522	10.35
Companies that had a financial year ending other than March	19	171	3.39
Statistical sample used	103	927	18.40

Source: research findings

2-3- Statistical model and research variables

To test the hypotheses of the research, the regression statistical model as described in Figure 1 has been used:

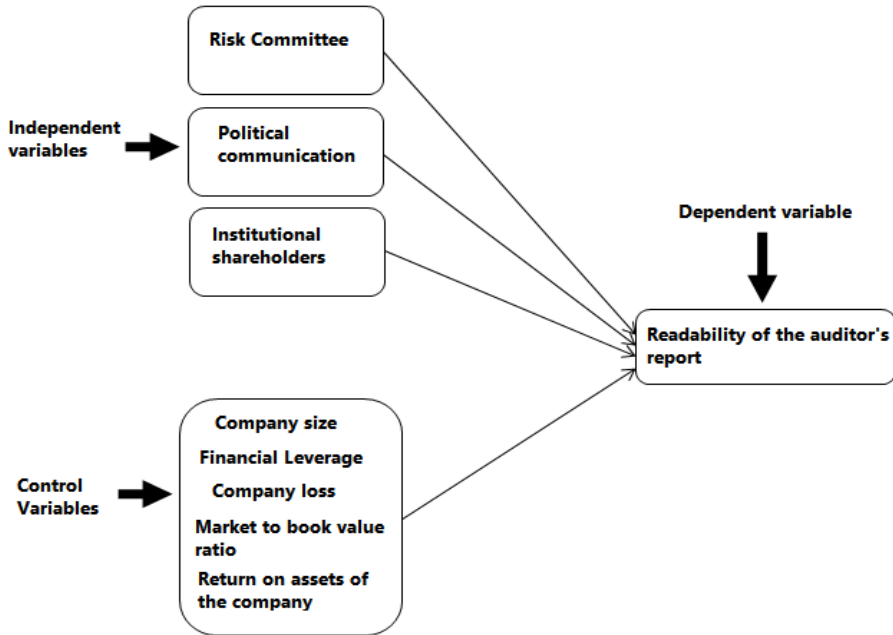


Fig 1. Conceptual model of the research

Source: research findings

In the present study, the "panel data" technique was used to estimate the research model. The mentioned technique by combining time series and cross-sectional data is widely used by experimental researchers and provides a very rich information environment for the development of theoretical results and estimation techniques. This technique is used in most cases where the number of data is limited and issues cannot be analyzed in a time series or cross-sectional manner. The increase in the number of observations and the high degree of freedom can be the reason for the integration of cross-sectional and time series data. In other words, the number of time periods

and time periods may be small in the research, or on the contrary, the number of time periods may be high and the number of time periods may be small. Table 2 describes the details of the variables used in the above equation.

Table 2. Details of the variables used in the research model

Variable name	Variable type	Scale of measurement
Readability of the audit report	Dependent	Fog index
Risk Committee	Independent	index variable; If the company has formed a risk committee, its value is one and otherwise it is zero
Political communication	Independent	If at least one of the major shareholders of the company (with a minimum ownership of ten percent) is a person affiliated with the government, the number is one and otherwise, the number is zero.
Institutional shareholders	Independent	Percentage of shares held by institutions (institutional owners)
The size of the employer's company	Control	The natural logarithm of the total book value of the company's assets
Company age	Control	The total number of years that the company has been active in the stock market since the beginning of the studied year
Financial leverage of the company	Control	The ratio of total liabilities to the total book value of the company's assets
Company loss	Control	index variable; If the company has reported a net loss, the number is one and otherwise, the number is zero
Return on assets of the company	Control	From the net profit divided by the total book value of the company's assets
Market to book value ratio	Control	From dividing market value by book value

Source: research findings

3-3- The readability measurement index of the auditor's report

We use the fog index to measure the readability of the auditor's report as a dependent variable. For the readability of the audit report, which is a function of two variables: sentence length (based on the number of words) and complex words (based on the number of words with three to several parts) and is calculated as follows:

(Average number of words in each sentence + percentage of complex words) = 0.4 fog index (1)

The general process of determining the readability level of the audit report based on the fog index is as follows:

1. Random selection of a sample of one hundred words from the beginning, one sample of one hundred words from the middle and one sample of one hundred words from the end of the report;
2. Counting the number of sentences of each example;
3. Determining the average length of sentences by dividing the number of words by the number of complete sentences of each hundred-word sample;
4. Counting the number of three-syllable words and more than three-syllable words in each of the previous one-hundred-word texts;
5. Summing up the number of complex words with the average number of words in sentences;
6. Multiplying the sum of the number of difficult and average words in the sentences by the fixed number of the formula;
7. Performing the calculations of clauses 4, 5 and 6 for two other samples of one hundred words;
8. Calculate the average results of all three samples through addition and division by number.

According to the above steps, if the number obtained from the Fog index is greater than or equal to 18, the readability of the text is very complex, if the resulting number is between 14 and 18, the text is difficult to read, if it is between 12 and 14, the text is simple, if between 10 to 12, the text is

acceptable and if it is 8 to 10, the text will be easy. Table 3 shows the limits of the mentioned index.

Table 3. Limits of the readability index of Fogg's auditor's report

Limits of readability index of flash auditor report	Description	Level
Greater than or equal to 18	Very difficult to read	1
14 to 18	Difficult to read	2
12 to 14	Plain text	3
10 to 12	Acceptable text	4
8 to 10	Easy to read	5

Source: research findings

4. Findings

1-4- Descriptive indices and Spearman's correlation matrix

Table 4 shows the central indicators and the dispersion of the data studied in the current research for all 103 investigated companies in the ten-year period of the research. Table 4 shows the descriptive statistics related to the research quantitative variables (including minimum, maximum, average and standard deviation) separately for the research sample companies. The average readability index of Flash as the first indicator of the readability of the audit report (87/65) indicates that the average audit reports of the research sample companies have easy readability, because according to the rating listed in Table 4-A, the said average is in the range of points (6) It is placed, which indicates the ease of reading the audit report. The results obtained for the readability index of the auditor's report (Fog index) also indicate the ease of reading audit reports for the average companies in the research sample, because the average score obtained for the sample companies is equal to 9.879 and the standard deviation is 0.744, which according to Table 4 is at the fifth level of The leveling of Fog index scores (easy readability) is placed. The minimum value reported for the readability of the report measured by the fog index was 8.5 and its maximum value was

11.14. According to the limits of the readability index of the Fogg auditor's report, 45.7% of the studied reports presented by the auditors were acceptable in terms of readability and 54.3% were easy to read. Also, the average of 0.399 percent of the variable of institutional shareholders also indicates that on average 0.399 percent of the shares of the research sample companies are owned by state and public companies (including banks, financial and credit institutions, insurance companies, government companies and other bodies) government), also with a standard deviation of 0.334 and its minimum value is zero and its maximum value is one.

Table 4- a. Descriptive indices of quantitative research variables

Variable name	Variable type	Min	Max	Average	Standard deviation
Readability of the auditor's report	Dependent	8.500	11.140	9.879	0.744
Institutional shareholders	Independent	0	1	0.399	0.334
Company size	Control	10.167	21.407	14.448	1.682
Return on company assets	Control	-0.610	0.670	0.113	0.183
Financial Leverage	Control	0.003	2.240	0.633	0.359
Company age	Control	2	53	21.6	8.869
Market value to book value	Control	-2.860	25.570	3.878	4.442

Source: research findings

Table 4-b. frequency distribution of nominal variables

Variable symbol	Variable type	Explanation	Abundance	Percentage
Risk Committee	Independent	A risk committee has been formed	198	19.3
Political communication	Independent	They have political connections	422	41.1
Company loss	Control	They have a net loss	157	15.3

Source: research findings

Table 4.b As it can be seen that 19.3% (out of 1024 collected cases related to risk committee) formed a risk committee and 41.1% (out of 1027 collected cases related to political communication) at least one of the major

shareholders of the company from the personalities It has been dependent on the government. 15.3 percent (out of 1023 collected cases related to the loss of the company) also had a net loss.

Table 4. B. Correlation relationships show favorable influencing factors on the readability of the auditor's report and other control variables of the research. As can be seen in the mentioned table, the political communication variable has a significant negative correlation (-0.011) with the readability of the audit report. That is, an increase in political connections (is associated with a decrease in the readability of the audit report. On the other hand, an increase in institutional shareholders is also inversely correlated with an increase in the readability of the audit report, because according to the aforementioned table, the variable of institutional shareholders has a significant negative correlation with the dependent variable of the research (-0.021).

Table 5. Spearman's correlation matrix related to research variables

Variable	1	2	3	4	5	6	7
Readability of the auditor's report	1						
Political communication	-0.011	1					
Institutional shareholders	-0.021	0.053	1				
Company size	-0.014	0.289	0.140	1			
Return on company assets	0.085	0.014	0.062	0.071	1		
Financial Leverage	-0.070	-0.019	-0.002	0.092	-0.565	1	
Company age	0.087	0.172	-0.125	0.082	-0.066	0.015	1
Market value to book value	0.070	0.126	-0.039	-0.069	0.330	-0.053	0.174

Source: research findings

2-4- Inferential statistics

In this part, using inferential statistics techniques, the appropriate method is chosen to estimate models and test hypotheses. In this research, in order to

provide a model to explain the favorable influencing factors on the readability of the auditor's report, the models presented in the research were used to fit this model by using the Breusch–Pagan test.

1-2-4- Panel model type identification tests

In order to estimate the research models using the panel method, among the methods of ordinary regression or ordinary least squares regression, fixed effects panel, random effects panel regression and pooled data panel regression, using appropriate tests such as Chow, Hausman, integration ability or Brush-Pagan are selected.

2-2-4- Chow and Hausman Test

In order to choose between panel models and ordinary least squares (OLS) regression, Chow's test was used, and the results are as follows. After the panel regression model is chosen as the appropriate model, the choice between fixed effects panel regression and random effects panel regression models should be made using the Hausman test, which results are as follows:

Table 6. Chow test results

Model	Statistic value	Degrees of freedom	Meaningful	Result (proper method)
Risk Management Committee	1.346	86.682	0.0258	Panel data method
Political communication	1.317	86.685	0.0357	Panel data method
Institutional shareholders	1.322	86.687	0.0302	Panel data method

Source: research findings

Table7. The results of the Hausman test

Model	Statistic value	Degrees of freedom	Meaningful	Result (proper method)
Risk Management Committee	7.967	7	0.335	Random effects method
Political communication	7.464	7	0.382	Random effects method
Institutional shareholders	6.549	7	0.477	Random effects method

Source: research findings

The results of Chow's test to compare the panel model with the normal regression model are shown in Table 7. Based on the results listed in the table, it can be seen that the p-value of all models for the Chow test is less than the error level of 0.05, and therefore, the whole model should be fitted as a panel with fixed effects. In the Hausman test, if the corresponding p-value is less than the error level of 0.05, the panel model with fixed effects and otherwise, the panel model with random effects is a suitable model for estimating the coefficients, and the results in Table 8 indicate the appropriateness of the random effects panel method. It is suitable for all models.

3-2-4- Breusch–Pagan test (integration test)

Breusch–Pagan test's test was used to test the integrated data model against random effects, and the hypothesis H_0 in this test indicates that there is the ability to integrate temporal, spatial, or both effects.

Table 8. The results of the Breusch–Pagan test

Model	Time		Location		Both		Result (proper method)
	Statistics	Meaningful	Statistics	Meaningful	Statistics	Meaningful	
Risk Management Committee	1.248	0.264	22.85	0.091	4.100	0.129	Merged data
Political communication	2.283	0.131	2.514	0.113	4.797	0.091	Merged data
Institutional shareholders	1.900	0.168	2.934	0.087	4.834	0.089	Merged data

Source: research findings

When the p-value of the test for the models is greater than the error level of 0.05, it means that the effects can be integrated in the model and the panel model with integrated effects is a suitable model for estimating the coefficients, otherwise the model identified in The Hausman test is recognized as the appropriate model. The results in Table 9 show that it is

possible to integrate the effects of time, place and both in the models, and the integrated data method is more suitable for fitting the models.

3-4- Examining the underlying assumptions

After choosing the appropriate method, it is necessary to check the validity of the underlying assumptions, the final approved method which includes checking the stability of variance and serial autocorrelation of model residuals. The most important underlying assumptions of the regression model include the normality of model errors (residuals), the absence of serial autocorrelation, and the absence of heterogeneity of variance. In this study, Kolmogorov–Smirnov, Shapiro-Wilk, and graphical methods were used to check the normality of model errors. Also, in order to test the assumptions of non-serial autocorrelation and non-homogeneity of variance of the model errors, Breusch–Godfrey and Pagan brushes tests have been used, respectively. The summary of the results obtained from the test of the mentioned admissions are shown in the following tables. To test the normality of the residuals of the model, the Shapiro-Wilk and Kolmogorov–Smirnov tests were used, and the hypothesis H0 in this test indicates that the residuals follow a normal distribution.

Table 9. The results of the test of the normality of the residuals of the model

Model	Kolmogorov–Smirnov		Shapiro-Wilk		Distribution
	Statistics	Meaningful	Statistics	Meaningful	
Risk Management Committee	0.084185	<0.001	0.9723	<0.001	Abnormal
Political communication	0.083418	<0.001	0.97173	<0.001	Abnormal
Institutional shareholders	0.08283	<0.001	0.97127	<0.001	Abnormal

Source: research findings

When the p-value of the test for the models is less than the error level of 0.05, it means that the residuals do not follow the normal distribution. The results in Table 10 show that the residuals of the models do not follow the distribution.

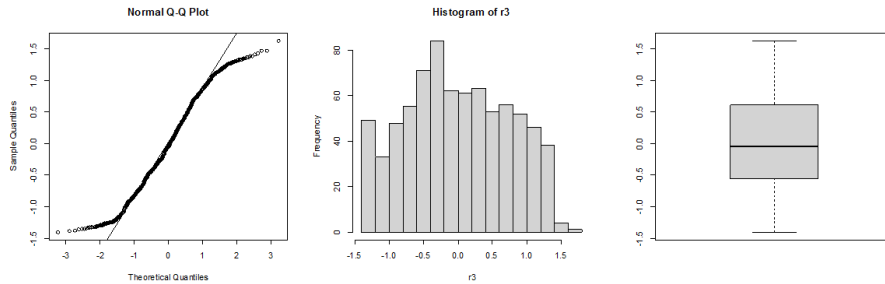


Fig 2. Histogram, box plot and normal probability of the residuals of the risk management committee model

Source: research findings

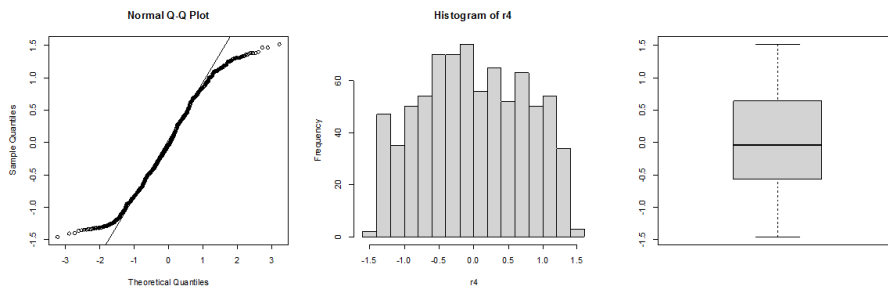


Fig 3. Histogram, box and normal probability diagram of the residuals of the political communication model

Source: research findings

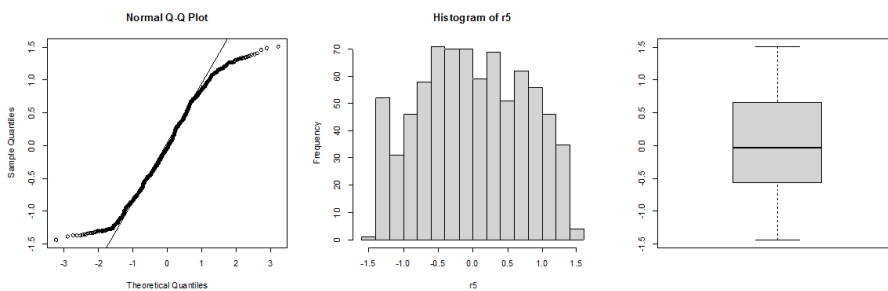


Fig 4. Histogram, box plot and normal probability of the residuals of the model of institutional shareholders

Source: research findings

4-4- The constancy of the variance of the residuals

For this purpose, Pagan brush test is used. In Breusch–Pagan test, if the p-value is less than the error level of 0.05, it indicates that there is no stability of variance.

Table 10. Results of Breusch–Pagan test

Model	Statistic value	Degrees of freedom	Meaningful	Result
Risk Management Committee	50.1	7	<0.001	Failure to establish variance stability
Political communication	22.118	7	0.002	Failure to establish variance stability
Institutional shareholders	23.76	7	0.001	Failure to establish variance stability

Source: research findings

The results of Breusch–Pagan test in Table 10 indicate that the residual variance of all 7 models is not stable ($p < 0.05$).

5-4- Investigating serial autocorrelation

One of the basic assumptions of panel models is that there is no serial autocorrelation between the residuals of the model. Breusch–Godfrey test is used to check serial autocorrelation. that the hypothesis H_0 indicates that there is no serial autocorrelation between the residuals of the model. The results of Breusch–Godfrey test of the models are reported in Table 11, which shows the absence of serial autocorrelation in all 7 models. ($p < 0.05$).

Considering that the underlying assumption of homogeneity of variance is not established for the above models, therefore, to solve the problem of heterogeneity of variance and serial autocorrelation, stable covariance matrix has been used and coefficients have been estimated for the models in question.

Table 11. The results of examining serial autocorrelation between model residuals

Model	Statistic value	Degrees of freedom	Meaningful	Result
Risk Management Committee	0.738	8	5.185	Absence of serial autocorrelation
Political communication	0.681	8	4.831	Absence of serial autocorrelation
Institutional shareholders	0.692	8	5.598	Absence of serial autocorrelation

Source: research findings

6-4- Conceptual model fitting and their review

The results of estimating the coefficients of the first to third conceptual model by the integrated data method (with stable covariance matrix) are reported in the table below.

Table 12. The results of fitting the First model

Model fitting method: pooled data panel (with stable covariance matrix)					
Independent variable: the effectiveness of the risk committee					
Variable	Symbol	Coefficient	Standard error	T statistic	P-value
Regression constant	Intercept	10.317	0.304	33.926	<0.001
Institutional shareholders	INSTIT	0.223	0.078	2.859	0.004
Company size	SIZE	-0.042	0.021	-1.974	0.049
Return on company assets	ROA	-0.071	0.204	-0.348	0.728
Financial Leverage	LEV	0.008	0.114	0.066	0.948
Company age	Age	0.004	0.003	1.390	0.165
Company loss	LOSS	-0.097	0.093	-1.044	0.297
Market value to book value	M/B	0.004	0.006	3.054	0.009
F statistic	4.791	-	Coefficient of explanation		0.022
P value	0.0001	-	Adjusted explanatory coefficient		0.0136

Source: research findings

The F statistic (4.791) and its corresponding p-value (0.0001) reported in the above table confirm the overall significance of the first conceptual model. The adjusted coefficient of determination also shows that approximately 1.36% of the changes in readability the auditor's report is explained by the independent variables in the first model. In Table 13, the p-value related to the effectiveness of the risk committee is reported as 0.004, which is less than the error level of 0.05, so the coefficient of the effectiveness of the risk committee is significant and between the effectiveness of the risk committee and the readability of the auditor's report, there is a significant relationship. Therefore, the first conceptual model of the research is confirmed. Also, the effectiveness coefficient of the risk committee is estimated at 0.223, which is a positive and significant value and shows that the readability of the audit report in companies that have formed a risk committee is less than others companies, and Fook's readability index was higher if the risk committee was effective. Also, the results obtained in Table 12 indicate that there is no significant relationship between the control variables and the readability of the audit report, with the exception of the company size variable (the coefficient of this variable is -0.042 in The acceptable error level of 5% is significant and the relationship negative with the readability of the audit report).

The F statistic (3.405) and its corresponding p-value (0.003) in Table 13 confirm the overall significance of the second conceptual model. The adjusted coefficient of determination also shows that approximately 0.010% of readability changes the auditor's report is explained by the independent variables in the second conceptual model. In Table 13-4, the p-value related to the coefficient of political communication is reported as 0.375, which is more than the error level of 0.05, so the coefficient of political communication is not significant and between political communication and the readability of the auditor's report, there is no significant relationship. Therefore, the second conceptual model of the research is rejected. Also, the results obtained in Table 13 indicate the absence of a significant relationship

between the control variables and the readability of the audit report, except for the variable of market value to book value (the coefficient of this variable is 0.014 It is significant at the acceptable error level of 5% and has a positive relationship with the readability of the audit report.

Table 13. The results of fitting the second model

Model fitting method: pooled data panel (with stable covariance matrix)					
Independent variable: Political communication					
Variable	Symbol	Coefficient	Standard error	T statistic	P-value
Regression constant	Intercept	10.163	0.274	37.118	<0.001
Institutional shareholders	INSTIT	-0.051	0.055	-0.922	0.357
Company size	SIZE	-0.033	0.119	-1.719	0.086
Return on company assets	ROA	-0.055	0.203	-0.270	0.787
Financial Leverage	LEV	0.005	0.112	0.047	0.963
Company age	Age	0.006	0.003	1.825	0.068
Company loss	LOSS	-0.109	0.93	-1.219	0.223
Market value to book value	M/B	0.113	0.005	3.054	0.002
F statistic	3.405	-	Coefficient of explanation		0.019
P value	0.003	-	Adjusted explanatory coefficient		0.010

Source: research findings

The F statistic (2.960) and its corresponding p-value (0.008) in Table 14 confirm the overall significance of the third conceptual model. The adjusted coefficient of determination also shows that approximately 0.8% of readability changes the auditor's report is explained by independent variables in the third conceptual model. In Table 1, the p-value related to the coefficient of institutional ownership is reported as 0.042, which is less than the error level of 0.05, so the coefficient of institutional ownership is significant and between institutional ownership and readability. The auditor's report (using Fog's readability index) has a significant relationship.

Table 14. The results of fitting the third model

Model fitting method: pooled data panel (with stable covariance matrix)					
Independent variable: institutional ownership					
Variable	Symbol	Coefficient	Standard error	T statistic	P-value
Regression constant	Intercept	10.119	0.277	36.585	<0.001
Institutional shareholders	INSTIT	-0.016	0.088	-0.185	0.042
Company size	SIZE	-0.030	0.020	-1.532	0.126
Return on company assets	ROA	-0.038	0.202	-0.186	0.852
Financial Leverage	LEV	0.006	0.114	0.051	0.959
Company age	Age	0.005	0.003	1.656	0.098
Company loss	LOSS	-0.109	0.94	-1.164	0.245
Market value to book value	M/B	0.113	0.005	2.869	0.004
F statistic	2.960	-	Coefficient of explanation		0.017
P value	0.008	-	Adjusted explanatory coefficient		0.008

Source: research findings

5. Conclusion

The purpose of this research is to develop a model of factors that positively influence the readability of the auditor's report in the Tehran Stock Exchange market. From a theoretical point of view, due to the separation of ownership from management, financial reports and audits are considered a communication bridge between managers and external stakeholders (such as shareholders) in joint-stock companies. Investors and external minority shareholders can be informed about the financial status of the company, its performance and cash flows through annual reports and therefore evaluate the aspects of the company's growth and the competence of its management. However, the increasing weakening of the readability levels of financial and audit reports in recent years has had an adverse effect on their communication performance. One of the effects of improving financial information disclosure systems in capital markets is that the information disclosed in annual reports includes many specialized terms and special

notes as well as non-financial information, which has made them more complicated and incomprehensible. In this regard, the length of financial and audit reports has been increasing, and therefore the readability of these reports has emerged as a difficult problem, especially in the current age when we are facing an information explosion. Therefore, the economic effects of the readability of financial and audit reports have attracted the attention of legislators and researchers alike. Therefore, according to the aforementioned, the aim of the current research is to develop a model of the factors that positively influence the readability of the auditor's report, including corporate governance mechanisms and political communications, such as the risk management committee and institutional shareholders, and it is expected that by establishing stronger corporate governance mechanisms and political communications In the company, the level of readability of the audit report has been improved and the amount of information asymmetry and representation problems among the shareholders and managers of the company have been reduced.

Forming a risk management committee is considered as a good corporate governance practice and supports the health and strength of the industry. However, it is expected that the extent or type of disclosure of significant or key audit matters, as well as the readability or understanding of the related audit report of the governing risk management committee. On the company. Corporate governance structures and control policy of company management significantly influence control risk assessment and audit content testing. Also, auditors consider the overall corporate governance structure during the audit. In other words, a strong corporate governance structure may affect the assessed level of control and inherent risks, and this in turn may affect the nature, form, and content of the audit report. It improves the readability of the audit report. Also, there has been no research on this issue in Iran and in foreign researches, so it was not possible to compare with domestic researches. Since the economic system of Iran, which is a developing country, is influenced by the government economic system that governs the

country and is mainly based on relationships, and this leads to the application of government controls on the financial and operational policies of companies, therefore, due to the fact that companies have government support, They have no desire to improve and improve the quality of disclosure and increase the transparency of their information environment. The existence of political communication is a valuable resource for companies. The benefits of political communication make it possible that the provision of quality information is not so important for a smaller number of company managers, so political communication cannot affect the quality of information of companies. The lack of influence of political communication on the readability of the audit report indicates that the large audit institution (according to the variable measurement method, the audit organization) since it does not put its reputation at risk with poor quality audit and on the other hand has more authority and beyond communication. The board of directors is political, so the political communication of the board of directors has less power and ability to influence than that of the audit institute; In other words, it can be concluded that political connections cannot affect the readability of the audit report; the results of this research did not match the findings of Jayasree & Shette (2020). In addition, another user of financial statements and audit reports are managers. Since according to agency theory, the interests of managers and owners are not aligned, there is a possibility of managers making decisions that are not in line with maximizing the owners' wealth. Institutional shareholders can be active observers of the company's operations and exert effective influence on management decisions through their major voting rights. Previous studies have provided empirical evidence that institutional shareholders have a deterrent power against managers to improve or distort accounting information. Institutional shareholders have an active role in improving the efficiency of information in the capital market. Therefore, we can expect institutional shareholders to play an effective role in improving the quality of financial reporting and the readability of financial and audit reports. Therefore, it is expected that the findings of the

present research can inform the Tehran Stock Exchange and Securities Organization, auditing institutions and compilers of auditing standards, including the community of certified accountants, so that they can take steps to create and strengthen solutions to increase the readability of audit reports and avoid the opportunistic actions of managers such as management prevent profits in the future.

Conducting financial research based on financial information in Iran, including accounting and auditing research, has always been associated with many difficulties. Most of the mentioned problems are related to the lack of suitable research infrastructures for conducting financial research. Slowing down the process of conducting research and providing a basis for increasing errors in research are among the most important problems caused by this issue. Below are the main limitations that existed during the implementation of the research and may interfere with the interpretation of the results and their generalizability:

1) The current research, like other empirical and archival research, provides convincing evidence about why and how corporate governance mechanisms affect audit reporting instead of the actual quality of the corporate governance structure and its performance in the company. In this regard, we believe that continuous interaction between archival studies and qualitative research projects (such as field research and case studies) will be effective for improving our knowledge about the company and auditors' behavior in relation to corporate governance mechanisms and audit reporting. 2) affecting the generalizability of the research results from its geographical area (i.e. Tehran Stock Exchange market) according to the specific characteristics of a country such as regulations and legal regulations and specific standards, the influence of a wide temporal area of the research as a result of the introduction of new standards or the occurrence of financial crises and Finally, neglecting the effect of inflation and other economic variables on the figures of financial statements and the relationship between research variables are among other major limitations of this research.

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Conflicts of interest

The authors declare no conflict of interest)

References

- Alduais, F. (2022). Textual analysis of the annual report and corporate performance: evidence from China. *Journal of Financial Reporting and Accounting*, 18(4): 671-693.
- Allen, D., & Luciano, E. (2019). Risk Analysis and Portfolio Modelling. *Journal of Risk Financial Management*, 12(8): 154- 170.
- Alqudah, H., Lutfi, A., & Abualoush, S. (2023). The impact of empowering internal auditors on the quality of electronic internal audits: A case of Jordanian listed services companies. *International Journal of Information Management Data Insights*, 3(2): 201-214.
- Baidoo, T., Yusif, H., & Ayesu, E. K. (2020). Improving loan repayment in Ghana: Does financial literacy matter? *Cogent Economics & Finance*, 8(1): 533- 552.
- Boateng, K. (2019). Credit risk management and performance of banks in Ghana: the “Camels” rating model approach. *International Journal of Business and Management Invention*, 8(2): 41-48.
- Brahmaiah, B. (2022). Credit Risk Management Practices of Indian Banking Industry: An Empirical Study. *International Journal of Economics and Financial Issues*, 12(2): 67-71.
- Chen, C., Leung, W., Tao, X., & Wang, H. (2023). The impact of financial reporting flexibility on auditor risk judgement: Evidence from the

- implementation of FIN 46R. *Journal of Accounting and Public Policy*, 42(3): 179- 196.
- Chun, S., Yeon, G., & Miguel A. (2020). Risk-Based Loan Pricing: Portfolio Optimization Approach with Marginal Risk Contribution. *Management Science*, 17(66): 3735-3753.
- Ding, B., & Wei, F. (2023). Overlapping membership between risk management committee and audit committee and bank risk-taking: Evidence from China. *International Review of Financial Analysis*, (86): 51- 63.
- Djebali, N., Zaghdoudi, K. (2020). Threshold effects of liquidity risk and credit risk on bank stability in the MENA region. *Journal of Policy Modeling*, 42(5): 1049-1063.
- Drobyazko, S., Barwinska-Malajowicz, A., Boguslaw, O., Chubukova, A., & Taliat, B. (2020). Risk Management in the System of Financial Stability of the Service Enterprise. *Journal of Risk and Financial Management*, 13(5): 300- 317.
- Ekinci, R., & Poyraz, G. (2019). The effect of credit risk on financial performance of deposit banks in Turkey. *Procedia Computer Science*, (158): 979-987.
- Fan, Y., & Xu, Z. (2022). Audit firm's Confucianism and stock price crash risk: Evidence from China. *International Review of Financial Analysis*, (79): 169-187.
- Feng Hsieh, S., & Brennan, G. (2023). Issues, risks, and challenges for auditing crypto asset transactions. *International Journal of Accounting Information Systems*, (46): 20-35.
- Gou, P. (2022). Audit Committee Disclosure Tone and Corporate Violations in China: Textual Analysis. *Mobile Information Systems*, (8): 1-11.
- Halalisan, F., Romero, C., Popa, B., & Landin, G. (2023). Global assessment of FSC forest management certification auditing through analysis of accreditation reports. *Journal of Land Use Policy*, (131): 1026-1044.

- Harb, E., El Khoury, R., Mansour, N., & Daou, R. (2022), "Risk management and bank performance: evidence from the MENA region. *Journal of Financial Reporting and Accounting*, 12(4): 183-196.
- Henriques, J., Caldeira, F., Cruz, T., & Simoes, P. (2023). A forensics and compliance auditing framework for critical infrastructure protection. *International Journal of Critical Infrastructure Protection*, 26(1): 66-80.
- Herath, K., Ahamed, M., & Athambawa, H. (2021). Credit risk and profitability of banking sector in Sri Lanka. *Journal of Economics, Finance and Accounting Studies*, 3(1): 65-71.
- Jackson, A., Barrie, S., & Johnson, L. (2021). Impact of exchange rate and inflation on commercial banks' performance in Sierra Leone. *Journal of Smart Economic Growth*, 6(3): 67-95.
- Jayasree, M., Shette, R. (2020). Readability of Annual Reports and Operating Performance of Indian Banking Companies. *IIM Kozhikode Society & Management Review*, 24(8): 413-430.
- Kaimu, A., & Muba, S. (2021). The relationship between credit risk and financial performance: Evidence from commercial banks in Tanzania. *East African Journal of Business and Economics*, 4(1): 22-43.
- Krkoska, E., Klaus, R., & Schenk-Hoppe, M. (2019). Herding in Smart-Beta Investment Products. *Journal of Risk and Financial Management*, 12(4): 47- 66.
- Laux, J., Wachter, S., & Mittelstadt, B. (2021). Taming the few: Platform regulation, independent audits, and the risks of capture created by the DMA and DSA. *Journal of Computer Law & Security Review*, (43): 1-17.
- Motedayen, N., Nazarian, R., Damankeshideh, M., & Seifipour, R. (2022). Identification and Evaluation of the Factors Affecting Credit Risk Management Using the Multinomial Logistic Regression Model. *Iranian Economic Review*, 26(3): 707-720. (In Persian)
- Odubuasi, A., Ofor, N., & Ugbah, A. (2022). Risk Committee Effectiveness and Financial Performance Indicator of Quoted Firms in Selected African Countries. *Journal of Financial Risk Management*, 11(6), 634-647.

- Olobo, M., Karyeija, G., Sande, P., & Khoch, S. (2021). Credit Risk Management Practices and Performance of Commercial Banks in South Sudan. *Journal of Financial Risk Management*, 10(03): 306-316.
- Qi, Y., & Yuan, Q. (2023). Risk-preparedness mechanism and audit quality: Evidence from mandatory increase of professional indemnity insurance and professional risk fund. *China Journal of Accounting Research*, 16(1): 737- 751.
- Ranji Jafroudi, N., & Pourali, B. (2021). The Effect of Credit Risk Management on Lending Performance of Bank Agriculture Branches. *Journal of Development and Capital*, 6(2): 157-183. (In Persian)
- Seidu, S., Barrat, J., & Khunti, K. (2020). Clinical update: The important role of dual kidney function testing (ACR and eGFR) in primary care: Identification of risk and management in type 2 diabetes. *Journal of Primary Care Diabetes*, 14(4): 370-375.
- Setiawan, A., Sudarto, S., Widiastuti, E. (2021). The influence of credit risk and liquidity risk on bank stability. *Icore*, 5(1): 1169-1177.
- Singh, N. (2021). Credit Risk Management Practices in Dashen Bank of Mettu Branch in Ethiopia. *Journal of Financial Markets, Institutions and Risks*, 5(2): 268-289.
- Smarika, J., & Sangeetha, R. (2021). Impact of credit risk management on financial performance of commercial banks. *International Journal of Business and Management Invention*, 10(7): 17–22.
- Smith, W. (2023). Tell Me More: A content analysis of expanded auditor reporting in the United Kingdom. *Journal of Accounting, Organizations and Society*, 28(2): 391- 408.
- Sriyono, S., & Nabellah, A. (2020). Can credit quality as a moderating variable in increasing profitability: Study on conventional commercial banks listed on the Indonesia stock exchange. *Journal Siasat Bisnis*, 26(1): 23-35.
- Warburton, S., & Jackson, A. (2020). Monetary responses to exogenous perturbations: The case of a small open economy (2007 – 2018). *PSL Quarterly Review*, 73(293): 181-201.

- Yan, D., Xiaohui, Z., & Mingzheng, W. (2021). A robust bank asset allocation model integrating credit-rating migration risk and capital adequacy ratio regulations. *Annals of Operations Research*, (299): 659-710.
- Yanenkova, I., Nehoda, Y., Drobyazko, S., Zavorodnii, A., & Berezovska, L. (2021). Modeling of Bank Credit Risk Management Using the Cost Risk Model. *Journal of Risk Financial Management*. 14(8): 211- 235.
- Yeasin, H. (2022). Impact of credit risk management on financial performance: A study of commercial banks in Bangladesh. *Interdisciplinary Journal of Applied and Basic Subjects*, 2(1): 14-29.
- Zhang, Y., & Smith, T. (2023). The impact of customer firm data breaches on the audit fees of their suppliers. *International Journal of Accounting Information Systems*, (50): 814- 830.