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An explanation of causes of business failure based on audit report disclosure, audit variables, and corporate governance mechanisms from the perspective of senior managers in companies listed on the Tehran Stock Exchange

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Abstract

The present research aimed to investigate the explanatory roles of audit report disclosure, audit variables, and corporate governance mechanisms in explaining the causes of business failure in companies listed on the Tehran Stock Exchange from the perspective of company managers. To this end, 249 senior managers from companies listed on the stock exchange were selected using convenience and purposive sampling methods, and a researcher-made questionnaire was emailed to them. The present research had a survey-causal type. The data collection tool included a researcher-made questionnaire that evaluated the roles of three main research variables in explaining the causes of business failure. The validity and reliability of the research tools were confirmed. Analysis of data was performed in SPSS and LISREL (through confirmatory factor analysis). The audit report disclosure about negative working capital (among the audit report disclosure variables) with a coefficient of 6.68, auditor tenure (among the audit variables) with a mean coefficient of 6.05, ownership concentration (corporate governance mechanisms) with a mean of 3.86 had the highest importance and impact in explaining the causes of business failure. In general, audit variables with a coefficient of 2.29 had the highest importance and impact in explaining the causes of business failure. The results of structural equations indicated that the business failure model was valid based on three main research variables. Furthermore, all three variables played significant roles in explaining the causes of business failure.

Keywords: business failure, audit report disclosures, corporate governance mechanisms, audit
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Introduction

Business failure is a common outcome of the entrepreneurial process due to the uncertainty in entrepreneurial activities. When entrepreneurs fail, they experience positive and negative consequences. The positive personal aspect of business failure is that it can initiate learning opportunities as a basis for future success. At the macro level, entrepreneurs' knowledge, skills, and new solutions, which are learned from failures, can move economies forward and

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free up resources that can be used in other sectors of the economy for more efficient use Entrepreneurs also carry financial, social, and emotional burdens of failure [51, 52]. Entrepreneurs invest their money in their businesses that are usually lost when they fail but they also lose their income by trying to find alternative jobs [13].

Audit quality is essential to ensure the reliability of financial information provided to decision-making stakeholders. In other words, auditors have to include an article in their report about uncertainty related to circumstances that may cast substantial doubt on the company's ability to continue operation in the future. If the probability of failure is high within a year after the publication of the report, the auditors may provide their opinions conditionally. Theoretical research refers to the ability of the audit profession to warn investors about the failure of the company's business in the future and indicates that investors pay attention to audit reports as an informative source. Similarly, other studies on business failure emphasize that audit opinions provide explanatory power for predicting business failure. During the global financial crisis, there is evidence to support that auditors make the right decisions when issuing conditional opinions for failed companies. However, the failure to detect complex and diverse businesses is obvious. The reason for some failures is that the auditors did not warn about some business failures in their reports.

During the last few decades, researchers in various fields of social sciences, including accounting, finance, strategy, and organizational studies, have studied business failure and its causes and consequences [41, 45]. Despite numerous studies on the causes of business failure, it is necessary to improve the integration of this field of research in social sciences [4]. For example, researchers have ignored the intersection between the causes of business failure and auditing. Audit quality is necessary to ensure the reliability of financial information provided to stakeholders so that they can make the right decisions [18]. In this regard, the auditors should provide a statement in their report about the uncertainty about circumstances that may cause serious doubt about the ability of companies to continue operating in the future. They should explain their opinions if failure is probable during the one year after the report [44].

The auditors present the audit process results in a report letter to the shareholders of the company. The audit report is written within the financial reporting framework and certain periods in the statements. This document contains the audit opinion which can be acceptable, conditional, or even rejected, and clearly shows the auditors' opinion about the perspective of the annual financial statements. Based on the relevant framework and wherever appropriate, whether the annual financial statements comply with the legal prerequisites or not, if the auditor is not able to give the audit opinion, the report contains the abandonment of the audit claim. The report must refer to any issue that the auditor emphasizes without specifying the audit opinion. Tee report provides an opinion on material instability related to events or conditions that may cause serious doubt about the ability of the company to continue working. The current issue is a characteristic, which is generally presented when the financial continuity of the company is in doubt [46]. Auditing standards specify that auditors' responsibility is to assess the uncertainty about the continuation of the company's operation [50]. Therefore, auditors should disclose any evidence found during audit processes related to the failure risk and explain in their audit reports if the risk remains after the accounting conclusion [44]. The audit report can be considered an early warning of impending failure [12]. Courts, auditors, and analysts use these documents to evaluate companies with financial crises [19, 27, 38]. Since shareholders of failed companies must be aware of ongoing risks in making decisions, it appears reasonable that auditors, financial advisors, and even business publications feel the commitment and responsibility to report failure risks to shareholders.

We expect auditors to provide attitudes in their reports for explaining the failure [27] and helping to evaluate them. More precisely, we assume that the audit report content provides a high explanatory power to indicate the causes of business failure. As far as we know, the transparent content of the audit report has not been used yet to explain the causes of business failure. The current studies have been polarized between deterministic and voluntary perspectives to explain the causes of business failure. While proponents of the deterministic theory agree that the causes are mainly external, such as industrial and environmental factors, researchers who propose the voluntary theory believe that there are internal factors and facts to explain the failures, such as facts about general management skills or financial management control. To clarify this issue, our research examines and analyzes all causes of business failure. The research background refers to the ability of the auditing profession to warn investors about upcoming failures and indicates that investors consider auditing important. Other studies on business failure emphasize that audit opinions have explanatory power in predicting bankruptcy [3, 27]. However, detection of business failure is complex, diverse, and difficult [41]. During the global financial crisis, auditors did not disclose business failures in their reports. In such organizational scandals, the stakeholders were worried because the companies failed and had to find financial support in a short time after receiving no audit opinion Even though the auditors' roles were questioned after such cases, there are several reasons for the lack of audit opinion. An explained opinion can lead to the following cases: it can accelerate the company's bankruptcy and can also encourage that company to cut the credit lines of its customers [12], or it can damage the reputation of the audit firm and increase the risk of prosecution for the audit firm [50]. After this crisis, the tendency to issue a conditional opinion before failure increases significantly [20]. There is evidence of the relationship between audit quality, audit failure, and explanatory reports in the research background [6, 8]. In the body of business failure research, accounting ratios have been used the most in explaining business failure [1]. Therefore, ratios are not all signs of financial failure, and thus other types of variables such as macroeconomic data [22], market variables [23], or non-financial information [33, 34, 43] sometimes can take its place. Non-financial data may refer to variables that represent dimensions of company management [16]. Firm size and industry are other non-financial dimensions used for assessing failure [3, 7, 14, 24, 31, 39]. According to other data apart from financial ratios for explaining business failure, there is evidence of using audit variables [3, 24].

The audit opinion is defined as the auditors' sum of professional judgments, decisions, and justifications in expert and professional opinions. In commenting on the financial statements, the auditor must obtain reasonable assurance of the absence of significant distortions.

Auditors have to mention any evidence that exists during the audit processes related to the risk of company bankruptcy and submit their audit reports conditionally if the audit risk is high.

The concept of corporate governance is very important for today's businesses. Corporate governance refers to the rules, procedures, and management of company contracts with shareholders, creditors, employees, suppliers, customers, and the government. Governance is legally allocated to a board of directors that have fiduciary duties to serve the interests of the company rather than its own or management's interests. Many studies have investigated the relationship between corporate governance and firm performance. On the contrary, only a few studies have considered the association between corporate governance and corporate failure.

The present study examined the question of whether the causes of business failure were explained in the audit report disclosure, in other words, whether independent auditors could predict the reasons for the company's failure before it occurred. Since the failure process may last 5 to 6 years, it is not a one-time phenomenon [29]. Therefore, auditors can detect early warning signals of company's crisis, and audit report users can be prepared to react to the next phases. Given the above-mentioned content, the present research aimed to investigate the application of audit variables and audit report disclosures and governance mechanisms in explaining the causes of business failure from the perspective of managers of companies listed on the Tehran Stock Exchange.

Theoretical bases of research

1- Business failure

Many different terms are associated with business failure, such as company closure, entrepreneurial exit, liquidation, bankruptcy, and organizational mortality. Entrepreneurial failure is usually defined as the cessation of an operation due to financial reasons, but the cessation of investment efforts by entrepreneurs is a type of entrepreneurial failure In particular, business definitions of "disappearance", "closure", "exit", and "failure" are confusing and often overlapping However, a failed business must be sold or liquidated to avoid losses or pay creditors, or it is a business that is unable to perform a profitable business Pretorius reviewed definitions of business failure and proposed a universal definition for the failure phenomenon: "An investment fails when it is involuntarily unable to reduce debt or absorb new equity capital to reverse the collapse. As a result, it cannot continue to operate under the current ownership and management".

2- Reasons for business failure

The failure literature indicates a large number of failure prediction models that are generally based on financial indicators [49]. There is a need for further analysis of the underlying causes of business failure in the literature. In examining the causes of failure, they examine only a few numbers of non-financial causes or focus on specific types of firms, such as small firms [7].

Various reasons for business failure may originate from the external environment or internal business factors, while some external causes are not so predictable. The internal causes of business failure can be predicted in many cases. In most cases, a complex combination of causes contributes to business failure. A single factor is rarely involved. According to the literature, the variables which explain company failure can be classified into four general groups: (1) specific company, (2) specific industry, (3) macroeconomic, and (4) locational or geographical factors. Ooghe and De Prijcker [49] classified the causes of bankruptcy into four groups: general environment (economy, technology, foreign countries, politics, and social factors), immediate environment (customers, suppliers, competitors, banks, and credit institutions, shareholders, and adventure), manager/entrepreneur (motivation, quality, skills, and features), and company strategy (strategy, investment, operations, personnel, and management).

A few factors in many types of business settings may lead to business failure. Barriers, which often arise from different types of business settings, occur simultaneously, sequentially, randomly, and unpredictably.

3- Audit report disclosures

4- Corporate governance mechanisms and audit variables

A) External managers: Based on the findings of Lakshana and Wijekoon [37], the ratio of external managers has a negative relationship with the probability of company failure. Board members of failed firms are significantly fewer than external directors. The prevailing belief is that internal managers lack purpose and have little independence from management. This lack of independence may be critical to the board, which is designed as a means of protecting shareholders from managerial self-interest. Immediately before bankruptcy, the failed firms have significantly fewer external managers than their surviving firms.

B) Duality of the role of the CEO: According to Lakshana and Wijekoon there is a significant difference between the two groups in terms of leadership structure, in which the duality of the CEO's role is applied more in failed firms than non-failed companies.

C) Audit opinion: The audit opinion is unimportant in detecting failed companies from non-failed companies. This means that audit opinion may not be a useful external adjustment mechanism in reducing the probability of company failure.

5- Research background

Nazemi Ardakani and Zare Mehrjerdi [47] conducted a study on for three industries, food and beverage products except for sugar and sugar, chemical products, and automobile and parts manufacturing, and designed a suitable bankruptcy prediction model specific to each industry, using the multiple discriminant analysis techniques. Salehi and Amiri conducted research titled comparative study of risk model and accounting model using the Receiver Operating Characteristic (ROC) curve to predict bankruptcy and studied the risk model in Iran's economic environment by Campbell et al. and compared it with the accounting model consisting of the variables of Ohlson's model of risk [48] and risk model in terms of the accuracy of bankruptcy prediction. Nazemi Ardakani conducted a study titled "Designing and explaining the bankruptcy prediction model of companies in terms of selected industries using the decision tree model" and indicated that the model designed for the automobile industry and parts manufacturing, chemical products, food products except for sugar had a prediction accuracy of 95.95%, 96.83%, and 97.83% respectively, indicating the high accuracy of the model designed for the three industries (especially for food products industry except for sugar). Mohammadi et al. conducted a study titled "investigating the effect of financial ratios in predicting bankruptcy in different industries and comparing them" using Cramer's Z test and indicated that financial ratios had different effects on predicting bankruptcy in different industries. In a study titled "comparing the economic values of risk models with an accounting approach to predict bankruptcy", Salehi et al. utilized the risk models by Shumway and Campbell et al. and the accounting-based model by Pourheydari and Koopaee to compare the accounting approach with risk models in terms of the economic value dimension. Hajian and Shiasi Arani discussed the reasons for failure in business using the auditor report disclosures in companies listed on the Tehran Stock Exchange. They examined the ability of audit report disclosure to explain the causes of business failure. Abbaspour Sani et al. studied the effect of disclosing the key items of the audit report on reducing business failure of capital market companies. Dadbeh and Partovifarstudied the effects of auditor report disclosures on the failure of businesses. Danilo evaluated, analyzed, and predicted financial distress, helplessness, and bankruptcy of companies. Iturriaga and Sanz studied the prediction of bankruptcy using neural networks in commercial banks in the United States. Siari and Mogan studied the roles of financial ratios as the most informational content in determining a set of industry characteristics, using the information of 1500 American companies from 1990-2011. Fanporsem and Chan believed that the differences between failed and non-failed companies can be determined using a combination of accounting ratios and audit data. Other auditors reported that audit information, such as the type of audit opinion, accumulation of conditional opinion, or high auditor turnover, helped assess failure [3, 27].

The literature review indicates that most studies have predicted bankruptcy or business failure based on economic or non-financial macro and micro variables using mathematical and statistical methods. Nora et al. and Lakshana and Wijekoon [37] examined the roles of audit report disclosures and audit variables and corporate governance mechanisms in explaining the causes of business failure. This research examined the simultaneous (explanatory) roles of the above-mentioned variables in explaining the causes of business (firm) failure by combining the explanatory variables of the two studies using a different methodology (field method); hence, it is assumed that:

Hypothesis 1: Audit report disclosures play a significant explanatory role in explaining the causes of business failure.

Hypothesis 2: Audit variables play a significant explanatory role in explaining the causes of business failure.

Hypothesis 3: Corporate governance mechanism plays a significant explanatory role in explaining the causes of business failure.

Research methodology

The present research was applied in terms of purpose, had a survey-causal type, and aimed to provide a business failure model based on audit report disclosure and audit variables. To this end, senior managers (CEOs) of companies listed on the Tehran Stock Exchange who were active in the stock exchange during the research period, were surveyed in this field. Using a purposive convenience sampling method, 249 companies (senior managers) were selected by simple random method and researcher-made questionnaires were sent to them via emails. The research questionnaire measured the effect of audit report disclosure variables and other audit variables on the business failure of companies. The questionnaire was quantified on a 5-point Likert scale, and its validity was confirmed by research experts. Cronbach's alpha coefficient was obtained equal to 0.83 in a preliminary sample.

Research results

Descriptive results indicated that 79% of respondents were male and 21% were female, 80% of them had bachelor's degrees or higher, and more than half of them had specialized in financial fields (accounting, auditing, financial and industrial-commercial administration). The highest frequency belonged to the age group of 36-45 years.

Table 1 presents the mean and standard deviation of business failure based on the variables of audit report disclosures. The mean score of audit report disclosure was minimum (3.71) for the results of the current period (income and cost) in explaining the causes of business failure and the mean score of audit report disclosure of the accumulated losses of previous years was maximum (4.11). Given the mean rank column, the audit report disclosure about negative working capital with a mean coefficient of 6.68 was the most important and effective factor in explaining the causes of business failure.

**: significant at the 1% error level. This significance level means that the mean score of the components is significantly greater than the theoretical mean. According to the significance level column in the table above, all audit variables are effective (with significant effects) in explaining the causes of business failure.
Table 2 presents the mean and standard deviation of business failure based on the variables of audit report disclosures. The mean score of the auditor's financial expertise (experience-knowledge) was minimum (3.92) in explaining the causes of business failure and the mean score of the auditor's tenure was maximum (4.11). According to the mean rank column, the auditor tenure with a mean coefficient of 6.05 was the most important and effective factor in explaining the causes of business failure.

Table 3 presents the mean and standard deviation of business failure based on the variables of audit report disclosures. The mean score of separating the roles of CEO and board chairman was minimum (3.65) in explaining the causes of business failure, and the mean score of ownership concentration was maximum (4.08). According to the mean rank column, the ownership concentration with a mean coefficient of 3.86 was the most important and effective factor in explaining the causes of business failure.

According to Table 4, the audit variables with a mean rank of 2.29 had the highest importance and influence in explaining the causes of business failure of firms, and corporate governance mechanisms had the lowest importance and influence in explaining the causes of business (firm) failure.

Model validation

A) Confirmatory factor analysis of audit report disclosure constructs in explaining the causes of business failure

Figure 1 shows the results of factor analysis of audit report disclosure constructs in explaining the causes of business failure, and 11 variables (observed variables) are used to measure the audit report disclosure. Each question is displayed with the index Q1 to Q11. The observation factor loading was greater than 0.3 in some cases, indicating the acceptable correlation between the latent variable (audit report disclosure in explaining the causes of business failure) and the observed variables. A significance test was performed after detecting the correlation of the variables.

Table 1: Business failure based on audit report disclosure variables

Variable	Mean	Sd	P-value	Mean rank	Chi-square test statistic
To what extent does the disclosure of accumulated losses of previous years in the audit report help to explain the causes of business failure?	4.116	0.7922	0.000**	6.48	11.75 (0.000)**
To what extent does the audit report disclosure about assets help explain the causes of business failure?	4.104	0.8407	0.000**	6.52	
To what extent does the audit report disclosure about the disapproval of all the accounts of the financial statements help to explain the causes of business failure?	3.980	0.8204	0.000**	6.01	
To what extent does the audit report disclosure about filing and legal actions help to explain the causes of business failure?	4.012	0.8156	0.000**	6.10	
To what extent does the audit report disclosure about long-term liabilities or contingent liabilities help explain the causes of business failure?	3.767	0.8484	0.000**	5.04	
To what extent does the audit report disclosure about the management plans implemented in the firm help to explain the causes of business failure?	4.096	0.8174	0.000**	6.36	
To what extent does the audit report disclosure about economic and regulatory environmental factors help to explain the causes of business failure?	4.012	0.8912	0.000**	6.06	
To what extent does the audit report disclosure about the results of the current period (income and expenses) help to explain the causes of business failure?	3.715	0.9853	0.000**	4.98	
To what extent does the audit report disclosure about the future events of the firm help to explain the causes of business failure?	3.912	0.8891	0.000**	5.69	
To what extent does the audit report disclosure about negative working capital help to explain the causes of business failure?	4.157	0.8203	0.000**	6.68	
To what extent does the number of descriptive-conditional clauses in the audit report help to explain the causes of business failure?	4.040	0.7921	0.000**	6.08	

The t-test was used to examine the significance of the correlation between the variables. Since the significance was examined at the error level of 0.05, if the t-test statistic was greater than the critical value of 1.96, the correlation would be significant. Based on the results of Figure 2, the value of the test statistic of the indices for measuring the audit report disclosure in explaining the causes of business failure was greater than 1.96 at the 5% error level, indicating that the correlation was significant. In other words, 11 audit report disclosures significantly reported and explained the causes of business failure. Furthermore, “disclosures about accumulated losses of previous years in the audit report” had a correlation intensity (correlation coefficient) of 0.71 in the model and the highest effect on the causes of business failure. The variable predicted and explained the causes of business failure more than other variables of audit report disclosures (Figure 1).

B) Confirmatory factor analysis of audit variable constructs in explaining the causes of business failure

Figure 3 shows the results of factor analysis of the audit report disclosure constructs in explaining the causes of business failure. Nine variables (observed variables) were used to measure the audit report disclosures. Each of the questions is displayed with index Q12 to Q20. The observation factor loading was greater than 0.3 in some cases, indicating the acceptable correlation between the latent variable (audit variables in explaining the causes of business failure) and the observed variables. A significance test was performed after detecting the correlation of the variables.

The t-test was used to examine the significance of the correlation between the variables. Since the significance was examined at the error level of 0.05, if the t-test statistic was greater than the critical value of 1.96, the correlation would be significant. Based on the results of Figure 4, the value of the test statistic of the indices for measuring the audit

Table 2: Explaining the causes of business failure based on audit variables

Variable	Mean	Sd	P-value	Mean rank	Chi-square test statistic
To what extent does the audit opinion help to explain the causes of business failure?	4.008	0.7620	0.000**	4.53	66.74(.000)**
To what extent does the audit fee help to explain the causes of business failure?	3.964	0.8905	0.000**	4.44	
To what extent does the independent auditor help explain the causes of business failure?	4.245	0.7568	0.000**	5.45	
To what extent does the auditor tenure help to explain the causes of business failure?	4.410	0.7302	0.000**	6.05	
To what extent does changing the auditor help to explain the causes of business failure?	4.056	0.8162	0.000**	4.78	
To what extent does the auditor's financial expertise (experience-knowledge) help explain the causes of business failure?	3.924	0.7970	0.000**	4.21	
To what extent does the audit firm size help to explain the causes of business failure?	4.261	0.7460	0.000**	5.54	
To what extent do professional ethics (judgment, competence, professional behavior, etc.) help to explain the causes of business failure?	4.112	0.8349	0.000**	4.97	
To what extent do national auditing standards and IFRS help to explain the causes of business failure?	4.153	0.8137	0.000**	5.03	

Table 3: Explaining the causes of business failure based on corporate governance

Variable	Mean	Sd	P-value	Mean rank	Chi-square test statistic
To what extent does family ownership of the company help to explain the causes of business failure?	4.080	0.7251	0.000**	3.81	87.62(0.000)**
To what extent does ownership concentration help to explain the causes of business failure?	4.080	0.8092	0.000**	3.86	
To what extent does the composition of board of directors help to explain the causes of business failure?	3.827	0.9409	0.000**	3.23	
To what extent does the independence of board of directors help to explain the causes of business failure?	4.072	0.8199	0.000**	3.76	
To what extent does the separation of the roles of CEO and board chairman help to explain the causes of business failure?	3.659	0.9796	0.000**	2.90	
To what extent does institutional ownership help explain the causes of business failure?	3.896	0.8736	0.000**	3.43	

Table 4: Prioritizing the position and importance of audit variables, audit report disclosure, and corporate governance in explaining the causes of business failure

Variable	**Mean rank**	**Rank**	**Test statistics (chi-square)**
Audit report disclosure	1.93	2	39.07 (0.000**)
Audit variables	2.29	1	
Corporate governance	1.78	3	

report disclosure in explaining the causes of business failure was greater than 1.96 at the 5% error level, indicating that the observed correlation was significant. In other words, 6 audit report disclosures significantly reported and explained the causes of business failure. Furthermore, "the auditor's professional behavior" had a correlation intensity (correlation coefficient) of 0.72 in the model and the highest effect on the causes of business failure. In other words, the variable predicted and explained the causes of business failure more than other audit variables (Figure 3).

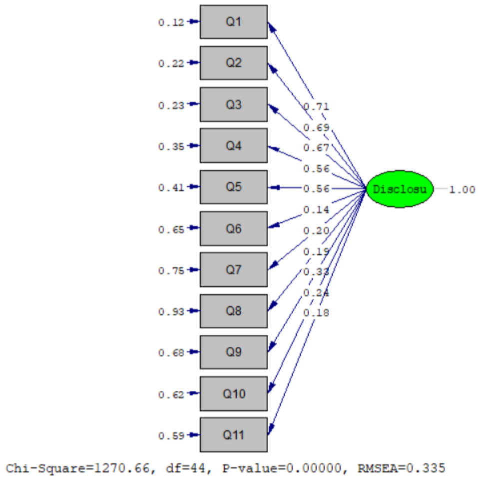

Figure 1: The model for explaining the causes of business failure based on the audit report disclosures (in the case of standard coefficients): The first-order confirmatory factor analysis

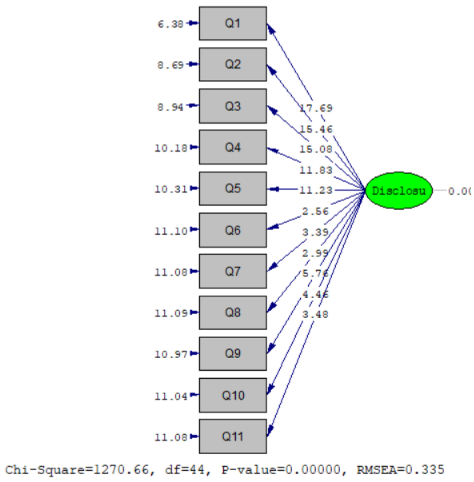

Figure 2: The model for explaining the causes of business failure based on the audit report disclosures (in the case of significant coefficients): The first-order confirmatory factor analysis

C) Confirmatory factor analysis of corporate governance mechanisms in explaining the causes of business failure

Figure 5 shows the results of factor analysis of the corporate governance constructs in explaining the causes of business failure. Six variables (observed variables) were used to measure the corporate governance mechanisms. Each of the questions is displayed with index Q21 to Q26. The observation factor loading was greater than 0.3 in some cases, indicating the acceptable correlation between the latent variable (corporate governance mechanisms in explaining the causes of business failure) and the observed variables. A significance test was performed after detecting the correlation of the variables.

The *t*-test was used to examine the significance of the correlation between the variables. Since the significance was examined at the error level of 0.05, if the t-test statistic was greater than the critical value of 1.96, the correlation would be significant. Based on the results of Figure 6, the value of the test statistic of the indices for measuring the corporate governance in explaining the causes of business failure was greater than 1.96 at the 5% error level, indicating that the observed correlation was significant. In other words, 6 corporate governance mechanisms significantly reported and explained the causes of business failure. Furthermore, “the independence of the board of directors” had a correlation intensity (correlation coefficient) of 0.69 in the model and the highest effect on the causes of business failure. In other words, the variable predicted and explained the causes of business failure more than other corporate governance mechanisms (Figure 5)

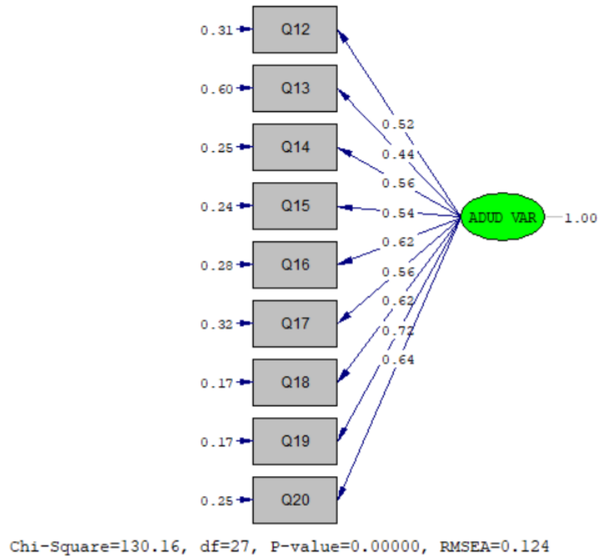

Figure 3: The model for explaining the causes of business failure based on audit variables (in the case of standardized coefficients): The first-order confirmatory factor analysis

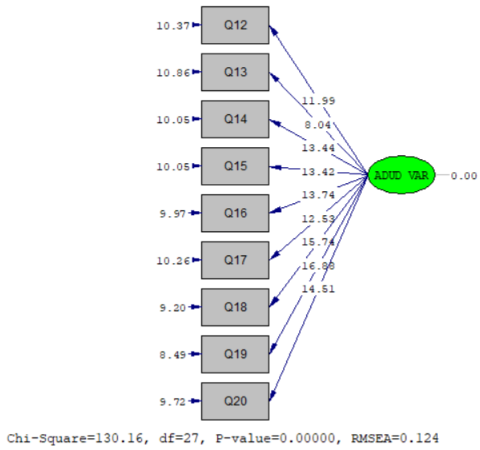

Figure 4: The model for explaining the causes of business failure based on audit variables (in the case of significant coefficients): The first-order confirmatory factor analysis

Hypothesis test (the second-order confirmatory factor analysis)

The hypotheses are tested using structural equations as follows, in other words, the final model is estimated and validated. Figures 7 and 8 present the results.

Table 5: The results of the research hypotheses

Hypotheses	Correlation coefficients	Test statistics	Hypothesis result
Hypothesis 1	0.43	14.85	Significance
Hypothesis 2	0.55	17.75	Significance
Hypothesis 3	0.61	18.03	Significance

Examination of the goodness of fit indices

The fit indices of the measurement model should be evaluated after the confirmatory factor analysis and before the structural model. The model fitting is thus the next step according to the following table.

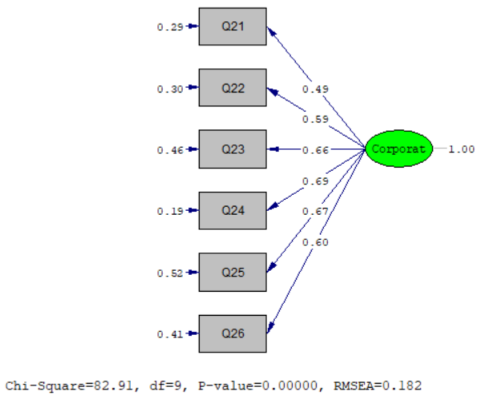

Figure 5: The model for explaining the causes of business failure based on corporate governance mechanisms (in the case of standard coefficients): The first-order confirmatory factor analysis

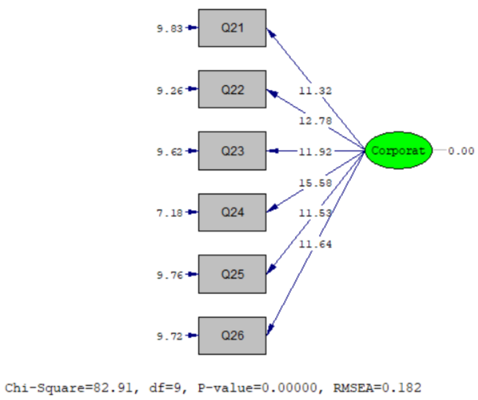

Figure 6: The model for explaining the causes of business failure based on corporate governance mechanisms (in the case of significant coefficients): The first-order confirmatory factor analysis

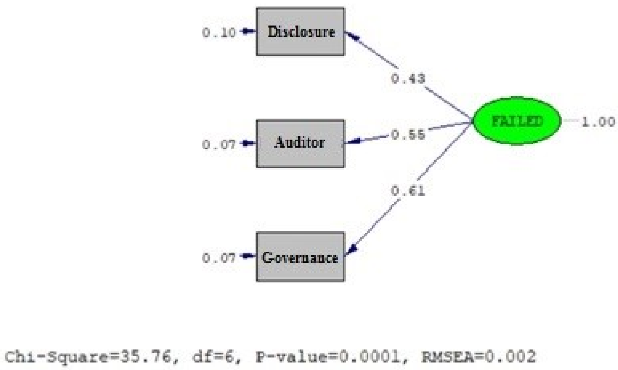

Figure 7: The final research model (in standard coefficients): The second-order confirmatory factor analysis

According to the obtained values for the goodness of fit indices, the measurement model had an acceptable fit in most indices. x^2/df and RMSEA were the most important indices. Therefore, the model was desirable and had a good fit; in other words, our sample was a good indicator of the research population.

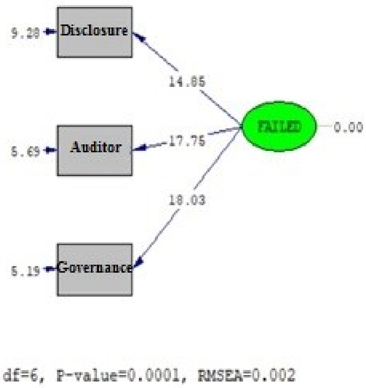

Figure 8: The final research model (in the case of significant standard coefficients): The second-order confirmatory factor analysis

Table 6: Values of the goodness of fit indices of the model

Index	Symbol	Allowable value	Obtained value	Result
Absolute indices	x^2/df	< 3	2.48	Confirmed
	RMSEA	< 0.08	0.165	Rejected
	GFI	> 0.8	0.98	Confirmed
	AGFI	> 0.8	0.86	Confirmed
Relative indices	NFI	> 0.9	0.93	Confirmed
	NNFI	> 0.9	0.97	Confirmed
	IFI	> 0.9	0.94	Confirmed
	CFI	> 0.9	0.88	Rejected
Adjusted indices	PGFI	> 0.5	0.51	Confirmed
	PNFI	> 0.5	0.77	Confirmed

Conclusion and suggestions

The present research examined the explanatory roles of audit report disclosures, audit variables, and corporate governance mechanisms in explaining the causes of business failure from the perspective of managers of companies listed on the Tehran Stock Exchange. To this end, 249 managers were selected from 249 active companies listed on the Tehran Stock Exchange in 2021 using the purposive convenience method. Therefore, a researcher-made questionnaire was designed to evaluate the explanatory power of the research variables (audit report disclosures, audit variables, and corporate governance mechanisms) in explaining the causes of business failure and was sent to company managers via emails to investigate the main purpose of the research.

The results of the first hypothesis test indicated that the audit report disclosures played a significant explanatory role in explaining the causes of business failure (Figures 6 and 7). Auditors are expected to provide attitudes in their reports that explain the failure [27] and help to evaluate them. More precisely, we assume that the audit report content provides a high explanatory power to indicate the causes of business failure. To our knowledge, the transparent audit report content has not yet been used to explain the causes of business failure. Current studies have been polarized between deterministic and voluntary perspectives to explain the causes of business failure. Even though the proponents of the deterministic theory agree that the causes are mostly external, such as industrial and environmental factors, researchers who propose the voluntary theory believe that there are internal factors and facts to explain failures, such as facts about general management skills or financial management control. To clarify this issue, our research examines and analyzes all causes of business failure. The research background refers to the ability of the auditing profession to warn investors about upcoming failures and indicates that investors consider auditing important Furthermore, other studies on business failure emphasize that audit opinions have explanatory power in predicting bankruptcy [3, 27]. However, identifying business failure is complex, diverse, and difficult [41]. During the global financial crisis, auditors did not disclose business failures in their reports. In those organizational scandals, the stakeholders were worried and upset because the companies failed and had to find financial support in a short period after receiving no audit opinion (Sikka, 2009). Even though the auditors' roles were questioned after these cases, there are several reasons for the lack of audit opinion. An explained opinion can lead to the following cases: It can accelerate the firm bankruptcy and also encourage companies to cut the credit lines of their customers [12], or can damage the reputation of the audit firm and increase the risk of the audit firm prosecution [50]. The tendency to issue a conditional opinion before failure increased significantly after this crisis [20] and there was evidence of the correlation between audit quality, audit failure, and explanatory reports in the research background [5, 8]. In the body of business failure research, accounting ratios have been widely used in explaining business failure [1]. Therefore, ratios are not all signs of financial failure, and thus other types of variables such as macroeconomic data [22], market variables [23] or non-financial information [33, 34, 43] can sometimes take its place. Non-financial data may refer to variables that represent dimensions of company management [16]. Firm size and industry are other non-financial dimensions for assessment of failure [3, 7, 14, 24, 31, 39]. Also, according to other data apart from financial ratios used to explain the business failure, there is evidence of using audit variables [3, 24].

It was also found that the corporate governance mechanisms significantly explained the causes of business failure of companies. The findings of this hypothesis were consistent with the results of research by Lakshana and Wijekoon. According to this finding, mechanisms such as ownership concentration and independence of the board of directors directly affected the company's financial variables such as accumulated profit and loss, financial reports, audit statements, and quality of accounting information. The quality of accounting information and financial reports and audited statements could explain and reveal the potential causes of failure or bankruptcy of firms. Therefore, corporate governance mechanisms could indirectly explain the causes of business failure. The research results of Lakshana and Wijekoon indicated that the ratio of external managers, the presence of the audit committee, and the salary of the board members had negative effects on the probability of company failure. The size of the board of directors, audit opinion, and external ownership appeared to be unrelated to failure status. CEO duality had a positive relationship with the probability of company failure. This finding provided insights and solutions about the role of corporate governance in financial health. The research findings will be useful for financial analysts, investors, regulatory bodies, and accounting professionals, and can improve decision-making, evaluation, and correction processes. All our findings were based on a survey of managers in companies listed on the Tehran Stock Exchange; hence, there may be limitations in extending to industries (or other stock exchanges). Future research can examine the period after the approval of the best procedure of corporate governance in the Tehran Stock Exchange.

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