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THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE MECHANISMS AND AUDIT QUALITY WITH INVESTMENT EFFICIENCY IN IRAN

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ABSTRACT

Purpose : Main purpose of this study is to investigate the impact of corporate governance mechanisms on Investment efficiency and also the impact of audit quality on Investment efficiency among the listed companies on the Tehran Stock Exchange (TSE).

Research Design, Data and Methodology: The population includes 110 firms selected through systematic sampling. The data are collected from the audited financial statements of the forms provided by TSE's website from 2012 to 2016. Corporate Governance and audit quality is considered as independent variables, and their impact is examined on the dependent variable (Investment efficiency).

Results: The statistical results based on data collected from 110 listed companies on the TSE during 2010–2016 Stated that there is a significant relationship between audit quality (auditor industry specialization, auditor reputation, auditor tenure, auditor independence)withInvestment efficiency.The results also showed that there is a significant relationship between corporate governance mechanisms(board non-executive members, controlling shareholders, institutional shareholders, CEO duality, board size)with Investment efficiency.

Conclusions: The current study is the first paper on the subject which conducted in the developing country such like Iran, the results of the study may give the strength to the auditing literature and can assist auditing and accounting researchers

KEYWORDS: Corporate Governance Mechanisms, Audit Quality, Investment Efficiency, Fuzzy Regression

JEL Classifications: G34, M41, M48

1. INTRODUCTION

Due to information asymmetry and agency problems between managers and investors, the role of corporate governance has become more important than ever. As the increase in information asymmetry and agency problems, they result in overinvestment and underinvestment. Due to the fact that the amount of information asymmetry and agency problems varies over the life span of the company, the present study seeks to investigate the relationship between corporate governance mechanisms and investment efficiency. Stefan and Back House (2003) state that "the issue of corporate governance is to ensure that companies act in the interests of their owners and not in the interests of managers, which results from the concept of separation of ownership and control. "One of the points of interest in the accounting and financial accounting literature is corporate governance, since it is believed that corporate governance mechanisms employing capabilities that have a direct impact on the ability of investors to force management to make efficient use of existing resources In organizations. Pinckowitz et al. (2006) state that "proper corporate governance is capable of doubling the corporate inventory balance against corporate governance weak."Verdi (2006) studied the relation between financial

reporting quality and investment efficiency on a sample of 38,062 firm-year observations between 1980 and 2003. Financial reporting quality has been posited to improve investment efficiency, but to date there has been little empirical evidence to support this claim. They found that proxies for financial Reporting quality are negatively associated with both firm underinvestment and overinvestment. Richardson (2006) examined the extent of firm level over-investment of free cash flow. Using an accounting based framework to measure over-investment and free cash flow, they found evidence that, consistent with agency cost explanations, over-investment is concentrated in firms with the highest levels of free cash flow. Morgado (2003) investigated the relationship between firm value and investment to test the underinvestment and overinvestment hypotheses. The In this study, we examined the relationship between corporate governance mechanisms and audit quality on Investment efficiency. Section 2 motivates the study and lists the hypotheses to be tested. Section 3 describes our research design, including measurements of primary variables and empirical specification. Section 4 describes the sample selection and descriptive statistics, the results from our regression analyses. Section 5 concludes with limitations and directions for future research.

2. REVIEW OF LITERATURE

SooBae et al. (2017) suggested that auditors may be one component to the management information environment and, as such, appear to influence capital investment behavior. Chen et al (2011) examined the role of FRQ in private firms from emerging markets, a setting in which extant research suggests that FRQ would be less conducive to the mitigation of investment inefficiencies. They found that the relation between FRQ and investment efficiency is increasing in bank financing and decreasing in incentives to minimize earnings for tax purposes. Such a connection between tax-minimization incentives and the informational role of earnings has often been asserted in the literature. They provided explicit evidence in this regard. Corporate governance has also emerged as one of the most important business lines at the beginning of the 21st century. Reviewing the definitions and definitions of corporate governance and reviewing the views of the experts suggests that corporate governance is a multidisciplinary concept, and the ultimate goal of corporate governance is to achieve the four objectives of accountability, transparency, justice (fairness), and respect for stakeholders' rights. Therefore, a comprehensive and complete definition of corporate governance can be presented: "Corporate Governance Laws, Regulations, Structures, processes, cultures and systems that achieve the objectives of accountability, transparency, justice and respect for the rights of the stakeholders. In general, the corporate governance system has various mechanisms, depending on the type of management system and the legal environment in which the company operates. The domestic corporate governance mechanism includes the first group of stakeholders in companies, namely, the board of directors and ownership structure, and the foreign mechanism involves the foreign market to control the company and the legal and legal system (Shleifer and Vishny, 1997).

Myers (1984) considered a firm that must issue common stock to raise cash to undertake a valuable investment opportunity. Management is assumed to know more about the firm's value than potential investors do. Investors are interpreting the firm's actions rationally. An equilibrium model of the issue-invest decision is developed under these assumptions. Their models showed that firms may refuse to issue stock, and therefore may pass up valuable investment opportunities. The model suggested explanations for several aspects of corporate financing behavior, including the tendency to rely on internal sources of funds, and to prefer debt to equity if external financing is required. Extensions and applications of the model are discussed.

Biddle et al. (2009) provided evidence of both in documenting a conditional negative (positive) association between financial reporting quality and investment, for firms operating in settings more prone to over-investment (under-investment). Firms with higher financial reporting quality also are found to deviate less from predicted investment levels and show less sensitivity to macro-economic conditions. These results suggested that one mechanism linking reporting quality and investment efficiency is a reduction of frictions such as moral hazard and adverse selection that hamper efficient investment. Biddle and Hilary (2006) examined how accounting quality relates to firm-level capital investment efficiency. Their first hypothesis was that higher quality accounting enhances investment efficiency by reducing information asymmetry between managers and outside suppliers of capital. Their second hypothesis was that this effect should be stronger in economies where financing is largely provided through arm's-length transactions, compared with countries where creditors supply more capital. Their results were consistent with these hypotheses both across and within countries. They were rousted to alternative econometric specifications, different measures of accounting quality and investment-cash flow sensitivity, and numerous control variables.

Dasgupta and Hilary (2009) suggest a model of adverse selection and empirically show that firms with higher financial information quality have lower adverse selection cost and lower risk for their capital providers, and have more flexibility to increase capital. Therefore, if financial reporting quality decreases adverse selection, it could be associated with higher investment efficiency through the decline in external financing costs. Under lower external financing costs and an investor's capital rationing, there is less possibility that managers pass up investments with a positive NPV (lower under-investment). Lower adverse selection opportunity also decreases opportunity for managers to engage in value destroying activities and self-maximizing decisions such as build an empire building with ample capital (less over-investment) (Jensen, 1986). Cheng et al. (2013) provided more direct evidence on the causal relation between the quality of financial reporting and investment efficiency. They examined the investment behavior of a sample of firms that disclosed internal control weaknesses under the Sarbanes-Oxley Act. They found that prior to the disclosure, these firms under-invest (over-invest) when they are financially constrained (unconstrained). More importantly, they found that after the disclosure, these firms' investment efficiency improves significantly.

Garcia et al. (2009) found a negative association between conditional conservatism and measures of over- and under- investment, and a positive association between conservatism and future profitability. This was consistent with firms reporting more conditionally conservative numbers investing more efficiently and more profitable projects. Lenard and Yu (2012) found that more important clients have significantly higher investment than less important clients, and that discretionary accruals are significant indicators of over-investment. Less important clients are more conservative in their investments, although they have more investment opportunities. They also observed that the proportion of over-investment drops for clients, regardless of their importance, whose auditors have a long tenure. Gomariz and Juan (2014) showed that financial reporting quality mitigates the overinvestment problem. Firms with lower (higher) use of short-term debt, exhibit higher (lower) financial reporting quality effect on investment efficiency.

Hoshi et al. (1991) evidence suggested that the information and incentive problems in the capital market affect investment. They came to this conclusion by examining two sets of Japanese firms. The first set has close financial ties to large Japanese banks that serve as their primary source of external finance, and are likely to be well informed about the firm. The second set of firms has weaker links to a main bank, and presumably faces greater problems raising capital. Investment is more sensitive to liquidity for the second set of firms than for the first set. The analysis also highlights the

role of financial intermediaries in the investment process. We extend this work by investigating the following question: What is the relationship between corporate governance mechanisms and audit quality with Investment efficiency? This question leads to the nine following hypotheses in this paper:

H_1: There is an inverse significant relationship between institutional shareholders and Investment efficiency.

H_2: There is an inverse significant relationship between controlling shareholders and Investment efficiency.

H_3: There is a significant relationship between board non-executive members and Investment efficiency.

H_4: There is a significant relationship between CEO duality and Investment efficiency

H_5: There is a significant relationship between board size and Investment efficiency

H_6: There is a significant relationship between auditor industry specialization and Investment efficiency

H_7: There is a significant relationship between auditor reputation and Investment efficiency

H_8: There is a significant relationship between auditor tenure and Investment efficiency.

H_9: There is a significant relationship between auditor independence and Investment efficiency

3. METHODOLOGY

The purpose of this research is on applied research. Also, in terms of nature and method, a descriptive - correlation type is used and the regression model is used for analyzing data and testing the hypotheses. The statistical population of this study is all companies accepted in Tehran Stock Exchange during the period from 2012 to 2016.   Using the systematic elimination method, only the companies that have all of the following conditions are selected as the statistical sample. These conditions are as follows:

- The companies concerned are not banks, financial intermediaries, leasing companies and insurers (due to differences in the balance sheet, the specific nature of the activity and the unusual financial leverage).

- The shares of the companies have been traded during each of the research years.

- From the perspective of increasing comparability, the end of the company's financial year will end in March.

- During the years studied, it did not change the fiscal year or activity.

- The companies are from the beginning to the end of the research on the list of listed companies.

- All data needed for them will be available between 2012 and 2016.After reviewing the companies in terms of their characteristics, a total of 110 companies was selected as the sample for this study. Data was collected using new software and database of Securities and Exchange Organization and Internet related sites. The implementation is done with EViews software.

3.1 Independent Variables

The independent variables are controlling shareholders, board non-executive members, board size, institutional shareholders, and CEO duality.

$$Inv_{i,t} = \beta_0 + \beta_1 Ins_{i,t} + \beta_2 Cos_{i,t} + \beta_3 Bnm_{i,t} + \beta_4 CEO\ dual_{i,t} + \beta_5 Bz_{i,t} + \beta_6 RoA_{i,t} + \beta_7 Cur_{i,t} +$$
$$\beta_8 Size_{i,t} + \beta_9 Lev_{i,t} + \beta_{10} Stdebt_{i,t} + \varepsilon_{i,t}$$

$Ins_{i,t}$: Institutional shareholders for firm i in year t

$Cos_{i,t}$: Controlling shareholders for the firm i in year t

$Bnm_{i,t}$: Board non-executive members for firm i in year t

$CEO\ dual_{i,t}$: CEO duality for firm i in year t

$Bz_{i,t}$: Board size for firm i in year t

$RoA_{i,t}$: Return on assets for firm i in year t

$Cur_{i,t}$: The ratio of current assets to current debts for firm i in year t

$LEV_{i,t}$: Financial leverage is the ratio of debt to assets. for firm i in year t.

$SIZe_{i,t}$: Firm size is the natural logarithm of total sales for firm i in year t

$Stdebt_{i,t}$: Short-term debt ratio (current) to total debt.

Also in this study, the independent variables are auditor industry specialization, auditor reputation, and Auditor tenure and auditor independence. The present research uses the model proposed by Sun & Liu, (2013) for measuring auditor industry specialization. The auditor reputation is obtained by dividing the total assets of all employers in a particular audit firm in the total stock on total assets of listed companies on the stock exchange. The present research uses the earnings management (discretionary accruals) for measuring audit quality. The present research uses the model proposed by Jones (1995) for measuring earnings management.

$$.NDA_{i,t} = \alpha_1\left(\frac{1}{A_{i,t-1}}\right) + \alpha_2\left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}}\right) + \alpha_3\left(\frac{PPE_{i,t}}{A_{i,t-1}}\right)$$

$NDA_{i,t}$: Non-discretionary accruals

$TA_{i,t}$: TA is total accrual.

$$TA_{i,t} = (\Delta CA_{i,t} - \Delta Cash_{i,t}) + (\Delta DCL_{i,t} - \Delta STD_{i,t}) + DEP_{i,t}$$

$A_{i,t-1}$: Total assets of the company in the previous year.

$\Delta REV_{i,t}$: $\Delta REV_{i,t}$ is the annual change in revenues scaled by lagged total assets.

$\Delta REC_{i,t}$: Changes in accounts of receivable, net current year compared to last year.

$PPE_{i,t}$: $PPE_{i,t}$ is property, plant, and equipment for firm i at year t, scaled by lagged total assets.

$\Delta CA_{i,t}$: $\Delta CA_{i,t}$ The change in current assets, current year compared to last year.

$\Delta Cash_{i,t}$: The change in the cash flow current year compared to last year.

$\Delta DCL_{i,t}$: Change in debt this year compared to last year.

$\Delta STD_{i,t}$: The change in short-term interest long-term debt current year compared to last year.

$DEP_{i,t}$: The cost of depreciation of tangible and intangible assets current year.

The present research uses the model 5, for measuring involuntary accruals.

$$NDA_{i,t} = \alpha_1(\frac{1}{A_{i,t-1}}) + \alpha_2 \left(\frac{\Delta REV_{i,t} - \Delta REC_{i,t}}{A_{i,t-1}}\right) + \alpha_3(\frac{PPE_{i,t}}{A_{i,t-1}})$$

We use the model 6, for measuring voluntary accruals (DA).

$$NDA_{i,t} = DA_{i,t}$$

3.2 Dependent Variables

The dependent variable is investment efficiency.

$$Inv_{i,t} = \alpha_0 + \alpha_1 Grow_{i,t-1} + \sum \varphi_j Control_{j,t,t-1} + V_{i,t}$$

$Inv_{i,t}$: $Inv_{i,t}$ is the investment level for firm i in year t.

$Grow_{i,t-1}$: $Grow_{i,t-1}$ Equals the natural log of total assets at the end of year t-1 divided by total assets at the end of year t-2.

$Control_{j,t,t-1}$: Control variables include that the following:

$lev_{i,t}$: Financial Leverage for firm i in year t.

$Age_{i,t-1}$: Corporation age since the date of foundation for firm i in year t-1.

$Cash_{i,t-1}$: Cash flows and short-term investment ratio of assets average assets.

$Size_{i,t-1}$: Natural logarithm of total assets.

$Ret_{i,t-1}$: The present research uses the model 2 for measuring $Ret_{i,t-1}$.

$$R_{i,t} = [P_t(1 + \alpha + \beta) - (P_{t-1} - C) + DPS]/(P_{t-1} - C)$$

$R_{i,t}$: Annual stock return.

P_t: Stock price for firm i in year t.

α: Capital increase percent from cash and receivables

β: Capital increase percent from reserves and dividend

P_{t-1}: Stock price for firm i in year t-1.

C: The amount of stock subscription.

DPS: Dividend per share.

The present research uses the model proposed by (Francis et al 2004):

$$\frac{TCA_{i,t}}{assets_{i,t}} = \alpha_0 + \alpha_1 \frac{CFO_{i,t-1}}{assets_{i,t}} + \alpha_2 \frac{CFO_{i,t}}{assets_{i,t}} + \alpha_3 \frac{CFO_{i,t+1}}{assets_{i,t}} + \varepsilon_{i,t}$$

3.3 Control Variables

In hypotheses 1 to 5 in this study, the control variables are Return on assets, the ratio of current assets to current debts, firm size, financial leverage, Short-term debt ratio (current) to total debt. Firm size is the natural logarithm of total sales. In hypotheses 6 to 9 in this study, the Control variables are firm size, Tangible assets (TANG) and Market-to-book ratio (MBV), Capital Structure (CS), Cash flows operations sales (CFOSALE), Operating cycle (OC), financial health.

SIZE: firm size is the natural logarithm of total sales (in thousands of euros).

TANG: TANG is Tangible assets.

MBV: market-to-book ratio. It is the ratio of (market value of equity plus the book value of liabilities) divided by the book value of total assets.

CS: CS is Capital Structure.

CFOSALE: CFOSALE is Cash flow operations sales.

OC: operating cycle.

$$financial\ leverage = \frac{total\ debt}{shareholders\ equity}$$

4. FINDINGS AND DESCRIPTIVE STATISTICS

Descriptive statistics of independent, dependent, and control variables for data from the 110 sample firms, including mean, median, standard deviation, minimum, and maximum are presented in Table 1 and 2 Multivariate regression analysis was applied at the 5% significance level for testing the hypotheses. Descriptive and inferential (multivariate regression analyses) analyses are used for testing the hypotheses of the research.

Table 1: Descriptive Statistics for Hypotheses 1 To 5

	Mean	Maximum	Minimum	Std. Deviation
INV	0.1875	0.2912	0.1754	0.3254
Ins	0.7452	1	0	0.4754
Cos	0.5424	1	0	0.4985
Bnm	0.7154	1	0.2	0.1875
CEO dual	0.9854	1	1	0.1245
Bz	5.0421	6	0	0.3658

Table 2: Descriptive Statistics for Hypotheses 1 To 5

	Mean	Maximum	Minimum	Std. Deviation
INV	0.229	0.066	0.001	0.106
SEP_AUD	0.135	0.084	0.001	0.325
REP_AUD	0.270	0.706	0.001	0.284
TEN_AUD	3.603	6	2	2.014
INDE_AUD	0.088	0.557	0.001	0.082
SIZE	11.092	12.95	10.87	0.325
MVB	1.642	7.012	0.088	1.325
TANG	0.236	0.798	0.001	0.198
CS	0.087	0.6047	0.001	0.099
CFOSAL	0.271	2.154	-0.745	0.187
OC	2.344	4.175	0.184	0.311

Table 3: Model Summary

Model	R- Square	Adjusted R Square	F	Durbin-Watson	Sig
	0.34	0.33	28.03	1.548	0.000

According to the first hypothesis, institutional shareholders (INS) are significantly associated with Investment efficiency. Based on the results of the multivariate regression model, INS has a beta coefficient of -0.01302 and p-value of 0.000. Therefore, there is a significant negative relationship between INS and Investment efficiency at 5% significance level.

Table 4: Results of Testing the First Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
Ins	-0.01302	0.000	accepted

According to the second hypothesis, controlling shareholders (Cos) is significantly associated with Investment efficiency. Based on the results of the multivariate regression model, Cos has a beta coefficient of 0.084 and p-value of 0.005. Therefore, there is a no significant relationship between Cos and Investment efficiency at 5% significance level.

Table 5: Testing the Second Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
Cos	0.0019	0.598	rejected

According to the third hypothesis, board non-executive members (Bnm) are significantly associated with Investment efficiency. Based on the results of the multivariate regression model, Bnm has a beta coefficient of 0.0145 and p-value of 0.043. Therefore, there is a significant relationship between Bnm and Investment efficiency at 5% significance level.

Table 6: Testing the Third Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
Bnm	0.0145	0.043	accepted

According to the fourth hypothesis, CEO dual are significantly associated with Investment efficiency. Based on the results of the multivariate regression model, CEO duality has a beta coefficient of -0.09856 and p-value of 0.000.Therefore; there is a significant negative relationship between CEO dual and Investment efficiency at 5% significance level.

Table 7: Testing the Fourth Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
CEO dual	-0.09856	0.000	accepted

According to the fourth hypothesis, board size (Bz) are significantly associated with Investment efficiency. Based on the results of multivariate regression model (Table2), Bz has a beta coefficient of 0.0044 and p-value of 0.745.Therefore; there is no a significant relationship between Bz and Investment efficiency at 5% significance level.

Table 8: Testing the Fourth Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
Bz	0.0044	0.341	rejected

$$INV_{i,t} = \alpha_0 + \alpha_1 SPEC_{i,t} + \alpha_2 SIZE_{i,t} + \alpha_3 MBV_{i,t} + \alpha_4 TANG_{i,t} + \alpha_5 CS_{i,t} + \alpha_6 CFOSALE_{i,t} + \alpha_7 OC_{i,t} + \alpha_8 ALT\_Z_{i,t} +$$

e (1)

SPEC has a beta coefficient of -0.007 and p-value of 0.741> 0.05. Therefore, there no is significant relationship between SPEC and investment.

Table 9: The Results of Estimating the Regression Model (1)

Model(1)	Unstandardized Coefficients		t	Sig.
	B	**Std. Error**		
Constant coefficient	-0.840	1.058	-0.887	0.391
SEP_AUD	-0.007	0.031	-0.44	0.741
SIZE	-0.184	0.087	-2.148	0.025
MVB	0.132	0.065	2.254	0.049
TANG	-0.008	0.054	-0.198	0.854
CS	-0.005	0.032	-0.208	0.874
CFOSAL	0.164	0.348	0.609	0.552
OC	-0.200	0.184	-1.170	0.386
ALT_Z	0.107	0.082	1.321	0.321

Table 10: Model Summary

Model	R Square	F	Durbin-Watson	Sig
1	0.34	2.991	2.415	0.000

Table 11: Results of Testing the First Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
SEP_AUD	-0.007	0.741	Rejected

$$\text{INV}_{i,t} = \alpha_0 + \beta\alpha_1 \text{REPU}_{i,t} + \alpha_2 SIZE_{i,t} + \alpha_3 MBV_{i,t} + \alpha_4 TANG_{i,t} + \alpha_5 CS_{i,t} + +\alpha_6 CFOSALE_{i,t} + \alpha_7 OC_{i,t} + \alpha_8 ALT\_Z_{i,t} + e$$

Auditor reputation (REPU) is significantly associated with investment efficiency. Based on the results of multivariate regression model (Table5), REPU has a beta coefficient of -0.401and p-value of 0.039. Therefore, there is a positive significant relationship between REPU and investment efficiency at 5% significance level.

Table 12: The Results of Estimating the Regression Model (2)

Model(2)	Unstandardized Coefficients		t	Sig.
	B	**Std. Error**		
Constant coefficient	-0.901	0.771	-1.325	0.323
REPU	-0.401	0.145	-2.874	0.039
SIZE	-0.341	0.084	-3.141	0.003
MVB	-0.016	0.022	-0.804	0.457
TANG	0.015	0.021	0.741	0.521
CS	-0.048	0.017	-2.365	0.005
CFOSAL	0.133	0.308	0.601	0.585
OC	-0.329	0.222	-2.321	0.039
ALT_Z	-0.044	0.074	-0.746	0.547

Table 13: Model Summary

Model	R Square	F	Durbin-Watson	Sig
2	0.43	2.94	2.254	0.003

Table 14: Multivariate Regression Analysis

Variable	Beta	Sig	Result
REPU	-0.401	0.039	Accepted

$$\text{INV}_{i,t} = \beta_0 + \beta_1 \text{TENURE}_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 MBV_{i,t} + \beta_4 TANG_{i,t} + \beta_5 CS_{i,t} + +\beta_6 CFOSALE_{i,t} + \beta_7 OC_{i,t} + \beta_1 ALT\_Z_{i,t} + e$$

Auditor tenure (TENURE) is significantly associated with investment efficiency. Based on the results of multivariate regression model, TENURE has a beta coefficient of -0.342 and p-value of 0.008. Therefore, there is a negative significant relationship between TENURE and investment efficiency at 5% significance level

Table 15: The Results of Estimating the Regression Model (3)

Model(3)	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
Constant coefficient	-0.599	0.741	-0.888	0.389
TENURE	-0.342	0.133	2.239	0.008
SIZE	-0.154	0.074	-2.325	0.048
MVB	0.057	0.035	1.741	0.112
TANG	-0.016	0.042	-0.360	0.701
CS	-0.136	0.055	-2.415	0.016
CFOSAL	0.213	0.324	0.704	0.658
OC	-0.198	0.241	-1.525	0.321
ALT_Z	0.098	0.079	1.350	0.312

Table 16: Model Summary

Model	R Square	F	Durbin-Watson	Sig
3	0.35	2.680	2.231	0.009

Table 17: Testing the Third Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
TENURE	-0.342	0.008	Accepted

$$\text{INV}_{i,t} = \beta_0 + \beta_1 \text{INDE}_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 MBV_{i,t} + \beta_4 TANG_{i,t} + \beta_5 CS_{i,t} + +\beta_6 CFOSALE_{i,t} + \beta_7 OC_{i,t} + \beta_1 ALT\_Z_{i,t} + e$$

Auditor independence (INDE) is significantly associated with Investment efficiency. Based on the results of multivariate regression model (Table11), INDE has a beta coefficient of 0.121 and p-value of 0.017.Therefore; there is positive significant relationship between INDE and investment efficiency at 5% significance level.

Table 18: The Results of Estimating the Regression Model (4)

Model(4)	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
Constant coefficient	-0.774	0.666	-1.125	0.335
INDE	0.121	0.046	2.652	0.017
SIZE	-0.312	0.078	-2.981	0.010
MVB	-0.032	0.021	-1.311	0. 310
TANG	0.032	0.018	1.019	0.172
CS	-0.049	0.016	-3.112	0.003
CFOSAL	0.165	0304	0.789	0.467
OC	0.163	0.111	1.452	0.146
ALT_Z	-0.068	0.068	-1.087	0.312

Table 19: Model Summary

Model	R Square	F	Durbin-Watson	Sig
4	0.046	3.211	2.201	0.001

Table 20: Testing the Fourth Hypothesis with Multivariate Regression Analysis

Variable	Beta	Sig	Result
INDE	0.121	0.017	Accepted

5. DISCUSSIONS AND CONCLUSIONS

The present research examined the relationship between five variables (controlling shareholders, board non-executive members, board size, institutional shareholders, and CEO duality) and Investment efficiency of firms listed on the Tehran Stock Exchange. The results of multivariate regression rejected three the hypotheses of the research. The results of multiple linear regression analysis show that there is a significant relationship between controlling shareholders, board non-executive members, CEO duality with Investment efficiency. There is a significant relationship between institutional shareholder with Investment efficiency. According to findings, that there is not a significant relationship between board non-executive members and board size with Investment efficiency. The limitation is related to the lack of classified data in the database of TSE. Therefore, the researchers were forced to use the audited reports of the firms and data collection became a very time consuming process. The present research examined the relationship between four variables (auditor industry specialization, auditor reputation, and auditor tenure and auditor independence) and investment efficiency of the chemical and pharmaceutical firms listed on the Tehran Stock Exchange. The results of multivariate regression rejected one the hypotheses of the research. The results of multiple linear regression analysis show that there is a significant relationship between auditor reputation, and auditor tenure and auditor independence with investment efficiency.

According to findings, that there is no a significant relationship between auditor industry specialization with investment efficiency. But positive coefficient obtained from this variable, the consistency of these findings indicates the theoretical foundations. This property is also expected to highlight the role that audit quality is to increase investment efficiency. This finding is consistent with the results (Das & Pandit, 2010). Also, this finding isn't consistent with the results (Lenard & Yu, 2012). We are unaware of prior studies on the association of quality financial information and investment efficiency in emerging markets, particularly Malaysia. Despite the importance of investment for companies and economic growth, studies show emerging markets suffer from a dearth of efficient investment. Investment is a key determinant of firm's productivity and economic growth, and further study of investment and financial information quality complements and extends finding on how more efficient investment could be undertaken in emerging markets. There is evidence that the shareholders are institutional investors and major companies are located outside Compared to the shareholders lacking, due to the facilities, expertise and experience can be much less expensive to monitor managers' performance. Also, due to the high proportion of shareholders who participate in the performance, Compared to the other shareholders have greater incentives to monitor managers.

- The majority of institutional investors, government agencies, and also the benefit of government support, there are political and financial influence. Thus the effects of these stakeholders, this aspect should also be considered. In the control, regardless of the level of voting is probably more effective than other shareholders, institutional shareholders act. Because, their connection to political power and social and financial resources, which may lead to their tendencies toward implementing audit institutions are of high quality and high reputation.

- Institutional investors, their investments are mostly long-term perspective. Retail shareholders because, unlike them, have more financial resources needed cash fast and do not need. Consequently, it appears that shareholders who are most concerned about the waste of company resources are motivated by profit-seeking executives and try to identify the issues that lead to abuse of managers is a must. The limitation is related to the lack of classified data in the database of TSE. Therefore, the researchers were forced to use the audited reports of the firms and data collection became a very time consuming process.

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