

The Relationship between Audit Quality and Earnings Management in Listed Companies in Tehran Stock Exchange

Hamidreza Nazari^{1*}, Narges Razi²

¹*Department of Accounting, Malayer Branch, Islamic Azad University, Malayer, Iran*

²*Master's Student, Department of Accounting, Electronic Branch, Islamic Azad University, Tehran, Iran*

*Corresponding Author Email: hamidnazari913@yahoo.com

Abstract: This research aims to investigate the effect of quality of independent audit on profit management in accepted companies in Tehran stock exchange which one main hypothesis and two sub-hypotheses are considered in order to do this purpose and to determine whether there is a relationship between quality of audit and profit management of accepted companies in Tehran stock exchange? According to the assumptions and spatial (which includes the accepted companies in Tehran stock exchange) and temporal domain (2009-2013), data were collected using existing data in the software of rahavard-e-novin and investigating reports and financial statements of accepted companies in Tehran stock exchange by visiting the official website of Tehran stock exchange. The results show that there is a significance relationship between types of audit institution and auditing tenure, profit management.

Keywords: Earnings Management, Audit, Profit, Quality, Continuity Audit, Type Auditing.

Introduction

Profit management is a state in which managers of business units report profit in accordance with their wishes, not in accordance with the economic content of entity 's activities. Scott (2009) defines profit management as selecting accounting policies by the administrator. In his opinion, the principal aim of this choice by manager is to obtain certain purposes, such as receiving additional compensation, decreasing debt ratio and tax and political costs and so on. Auditors play an important role in monitoring the performance of managers and limiting his opportunistic behaviors. As far as scientific and professional association state that the task of audit is to credit and warrant towards financial reports and finally improving the quality of accounting information. They know audited financial information as a tool to reduce investment risk, improve quality of decision making within organization and outside the organization, increase return level due to trading securities and improving the structure of investment and different groups (Banff mhad et al., 2013). De anjelo (1981) is provided a common definition about audit quality as "market valuation". In fact, market valuation is: the possibility that an auditor discovers important distortion or misstatement in financial statements and or he discovers the master's system and he reports a discovered and important distortion. If auditor discovers important distortion, it is related to his ability and if he reports discovered, important distortion, it is related to his independence. Palmeros (1984) defines quality of audit by accreditation of audit. Since the purpose of audit is to create confidence towards financial statements, audit quality is defined as such that audited financial statements are free from important distortion. In fact, in this definition, the results of audit are emphasized. It means that the reliability of audited financial statements reflects audit quality.

Research hypothesis

Main hypothesis: There is a significance relationship between audit quality and profit management.

First sub-hypothesis: There is a significance relationship among type of audit firm and profit management.

Second sub-hypothesis: There is a significance relationship between the auditor tenure and profit management.

The dependent variable

Profit management: following steps will follow to calculate Profit management variable: Non-discretionary and discretionary accruals are calculated using jones model:

$$TACC_{i,t}/TA_{i,t-1} = \alpha_1(1/TA_{i,t-1}) + \alpha_2(\Delta REV_{i,t}/TA_{i,t-1}) + \alpha_3(PPE_{i,t}/TA_{i,t-1}) + \varepsilon_{i,t}$$

In which:

TACC_{i,t}= total accruals which are obtained from net income before unusual items minus operating cash flow.

TA_{i,t-1}= total assets for firms I in year t-1.

ΔREV_{i,t}= share shift of firm I in year t.

PPE_{i,t}= net balance of property, plants and equipment for firm I in year t.

α₁, α₂, α₃ are obtained from this regression and then following model is used to compute DCACC_{i,t}:

$$DACC_{i,t} = TACC_{i,t}/TA_{i,t-1} [\bar{\alpha}_1(1/TA_{i,t-1}) + \bar{\alpha}_2(\Delta REV_{i,t} - \Delta RWC_{i,t})/TA_{i,t-1} + \bar{\alpha}_3 PPE_{i,t}/TA_{i,t-1}]$$

In which:

ΔREV_{i,t}= share shift of firm I in year t.

ΔREC_{i,t}= change in receivable accounts for firm I in year t.

PPE_{i,t}= net balance of property, plants and equipment for firm I in year t.

TA_{i,t-1}= total assets for firm I and year t-1.

Materials and Methods

Independence variable

Table 1. Independence variables.

Measurement method	baSymbol	Independence variable
If the has been investigated by auditing organization , otherwise number one will be belonged	Auditor reputation	Type of audit
	Auditor scniority(SEN)	Auditor tenure

That is a dummy variable that if company has been investigated by auditing organization more than 3 years, number one will be belonged otherwise number zero will be belonged.

Control variable

Table 2. Control variable.

Firm size: it is calculated by logarithm of book value of total assets.	Control Size variable	Size
Financial leverage: ratio of debt to assets.	Control variable	Lev _{it}
It is calculated by value market of equalitydivided by the book value at the end of the fiscal period,	Control variable	M/B
Ratio of return to assets.	Control variable	ROA

The statistical model

$$DAit = \beta_0 + \beta_1 Auditorit + \beta_2 SIZEit + \beta_3 LEVERAGEit + \beta_4 ROAit + \beta_5 MBit + \epsilon it$$

$$DAit = \beta_0 + \beta_1 Auditor senioriyu + \beta_2 SIZEit + \beta_3 LEVERAGEit + \beta_4 ROAit + \beta_5 MBit + \epsilon it$$

Results

Hypothesis analysis

The first sub-hypothesis test: There is a significance relationship between profit management and type of auditing organization.

H₀= there is no significance relationship between profit management and type of auditing organization.

H₁= there is a significance relationship between profit management and type of auditing organization

H₀: P₁ = 0

H₁: P₁ ≠ 0 claim

Table 3. Pearson correlation coefficient of sig. level and statistical model number among audit firm and profit management.

Independent variable	Dependent variable	Type of auditor
Pearson correlation coefficient	Profit management	0.076
Sig. level		0.023
number		416

Table 3 provides correlation coefficient, significance level and data numbers by which, Pearson correlation coefficient is 0.076 among two variables- type of auditing firm and profit management. This figure shows relationship intensity between 2 variables at error level of 0.05. Since sig is less than 0.05, H₀ is rejected at error level of 5% and correlation is confirmed between 2 variables.

Table 4. Ccorrelation coefficient and Durbin -Watson test between types of audit firm and profit management.

Model	Wat sondurbin test	Error of estimate standard	Adjusted determination coefficient	Determination coefficient	Correlation coefficient
1	2.042	0.23438	0.163	0.173	0.416

Table 4 shows that correlation coefficient is also 0420 between variables and determination coefficient is also 0.176 which this number is explained by type of audit firm variable. One of the assumptions is regression of independence of errors, if we reject the independence of errors hypothesis and there is correlation between errors, there is not possibility to use regression. Durbin- Watson statistics is used in order to investigate independence of errors from each other that if amount of Durbin- Watson statistics is between 2.5, 1.5 so correlation hypotheses between errors is rejected and we can use regression. Durbin- Watson statistics is 2.050 according to table 4 and this figure shows that errors are independent from each other and there is no correlation among errors and correlation assumption between errors is rejected and we can use regression.

Table 5. Regression variance analysis between type of audit firm and profit management.

Model	Sum of square	Freedom	Mean square	Sig. level	F-statistics
Regression	4.722	5	0.944	0.000	17.192
Residual	22.522	410	0.055		
Total	27.244	415			

Table 5 shows variance analysis which is used for significance of total regression from F- statistics or sig. level and null and alternative hypotheses are as follows:

H₀: there is no significance model or linear relationship between two variables.

H₁: there is significance model or linear relationship between two variables

Sig.Value 0.000 Which is less than 5% so H_0 is rejected and H_1 is accepted,i,e there is a significance model or linear relationship between two variables.

Table 6. The coefficients of regression equation between ownership structure and profit management.

Model	Sig. level	t-statistics	Unstandardized coefficients		
			Beta	Std.Error	B
Constant value	0.005	-2.854	-	0.027	-0.077
Institutional ownership	0.040	12.272	0.059	0.027	0.032
Financial leverage	0.389	0.862	0.039	0.097	0.084
Firm size	0.952	-0.060	-0.003	0.001	-6.0895
The ration of market value to book value	0.455	-0.748	-0.034	0.003	-0.002
Return asscts	0.000	9.178	0.419	0.001	0.008

In table 6 output and in column B, constant amount and independence variable coefficient are provided. According to the table (6)output, rest of columns include standard of column coefficients, t- statistics and sig. that is applied with zero number in order to assume the quality for each of B column coefficients.

The second sub- hypothesis test: There is a significant relationship between profit management and auditor tenure.

H_0 = there is no significant relationship between profit management and auditor tenure.

H_1 = there is a significant relationship between profit management and auditor tenure

$H_0: P_1 = 0$

$H_1: P_1 \neq 0$ claim

Table 7. Pearson correlation coefficient of sig. level and statistical sample number between auditor tenure and profit management variables.

Independent variable	Dependent variable	Ownership concentration
Pearson correlation coefficient	Profit management	0.005
Sig. level		0.012
Number		416

Table 7 provides correlation coefficient, sig. level and data according to which Pearson correlation coefficient is 0.005 between two variables of auditor tenure and profit management. This number shows the intensity of relationship between two variables in error level of 5% According to output of spss software, (tables) since sig. is smaller than 0.05, H_0 is rejected at error level of 5% and correlation is accepted between these two variables.

Table 8. Correlation coefficient and Durbin -Watson test between types of audit firm and profit management.

Model	Durbin- Watson test	Error estimate norm	Adjustd determination co.	Determiation co.	Correlation co.
1	2.042	0.23430	0.164	0.174	0.417

According to table 8, correlation coefficient is 0.417 between variables and calculated determination coefficient is also 0.174 which this figure is a percent of changing from profit management variable that is explained by audit tenure variable. One of the regression assumptions is independence of errors, if independence of errors hypothesis is rejected and there is correlation between errors, we cannot use regression. Watson- Durbin statistics is used to investigate independence of errors from each other that if Watson-Durbin statistics is between 1.5-2.5 so correlation between errors is rejected and regression can be used. Watson-Durbin statistics value in table 8 is 2.042 and this figure implies that the errors are independent from each other and there is no correlation among errors and correlation in hypothesis among errors is rejected and regression can be used.

Table 9. Regression variance analysis between type of audit firm and profit management.

Model	Sum of square	Freedom	Mean square	Sig. level	F-statistics
Regression	4.736	5	0.947	0.000	17.255
Residual	22.508	410	0.055		
Total	27.244	415			

Table 9 shows variance analysis which is used for significance of total regression from F-statistics or sig and null hypothesis and alternative hypothesis are as follow:

H₀: there is no significance model or linear relationship between two variables.

H₁: there is significance model or linear relationship between two variables.

Sig. Value 0.000 Which is less than 5% so H₀ is rejected and H₁ is accepted, i.e. there is a significance model or linear relationship between two variables.

Conclusion

According to these research hypotheses: Main hypothesis: there is significance relationship between audit quality and profit management. Main hypothesis includes two sub-hypothesis which result of hypotheses analysis is explained in following: First hypothesis: there is significance relationship between audit institution and profit management. According to tests and analysis which are done by multivariate liner regression and correlation in chapter 4 and in respect to outputs of SPSS software in investigating the relationship among audit institution and profit management, the results show that calculated sig (0.023) is less than 5%. As a result shows that there is a relation between audit institution and profit management. Calculated correlation coefficient (0.76) also shows that there is positive and direct relation between variables. The results of research show that there is significance relation between audit institutions and profit management. so we can say that by changing auditor, profit management is changed. Second sub-hypothesis: there is significance relationship between auditor continuation and profit management. According to tests and analysis which are done by multivariate liner regression and correlation in chapter 4 and in respect to outputs of SPSS software in in investigating the relationship among auditor continuation and profit management, The results show that calculated sig (0.012) is less than 5%. As a result shows that there is a relation between auditor continuation and profit management. Calculated correlation coefficient (0.005) also shows that there is positive and direct relation between variables. The results of research show that there is significance relation between auditor continuation and profit management. so we can say that there is a direct relation between selection process, changing and continuation of monitoring mechanism on company and independent auditor with profit management, i.e. if corporation is continued with external organizational auditor, so profit management will be continued too.

Conflict of interest

The authors declare no conflict of interest

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