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

Vida Khaleghi¹, Mahbubeh Jafari²*, Ali Baghani³

¹ Master’s Student, Department of Accounting, Electronic Branch, Islamic Azad University, Tehran, Iran
² Faculty member, Department of Management and Accounting, Islamic Azad University, Tehran South Branch, Tehran, Iran
³ Faculty member, Department of Management and Accounting, Islamic Azad University, Tehran South Branch, Tehran, Iran

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.[1]

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.[2]

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.[3] 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.[4]

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:

\[
\text{TACC}_{i,t} = \text{TACC}_{i,t-1} - \alpha_1(\text{TA}_{i,t-1}) + \alpha_2(\Delta \text{REV}_{i,t}) + \alpha_3(\Delta \text{REC}_{i,t}) + \alpha_4(\text{PPE}_{i,t}) + \alpha_5(\Delta \text{E}_{i,t})
\]

In which:
- \( \text{TACC}_{i,t} \) = total accruals which are obtained from net income before unusual items minus operating cash flow.
- \( \text{TA}_{i,t-1} \) = total assets for firms I in year t-1.
- \( \Delta \text{REV}_{i,t} \) = share shift of firm I in year t.
- \( \Delta \text{REC}_{i,t} \) = change in receivable accounts for firm I in year t.
- \( \text{PPE}_{i,t} \) = net balance of property, plants and equipment for firm I in year t.
- \( \alpha_1, \alpha_2, \alpha_3 \) are obtained from this regression and then following model is used to compute DCACC:

\[
\text{DACC}_{i,t} = \text{TACC}_{i,t} - \alpha_1(\text{TA}_{i,t-1}) + \alpha_2(\Delta \text{REV}_{i,t}) + \alpha_3(\Delta \text{REC}_{i,t}) + \alpha_4(\text{PPE}_{i,t}) + \alpha_5(\Delta \text{E}_{i,t})
\]

In which:
- \( \Delta \text{REV}_{i,t} \) = share shift of firm I in year t.
- \( \Delta \text{REC}_{i,t} \) = change in receivable accounts for firm I in year t.
- \( \text{PPE}_{i,t} \) = net balance of property, plants and equipment for firm I in year t.
- \( \text{TA}_{i,t-1} \) = total assets for firm I and year t-1.

**INDEPENDENCE VARIABLE**

<table>
<thead>
<tr>
<th>Measurement method</th>
<th>baSymbol</th>
<th>Independence variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the company has been investigated by auditing organization, otherwise number one will be belonged.</td>
<td>Auditor reputation</td>
<td>Type of audit</td>
</tr>
<tr>
<td>Auditor seniority(SEN)</td>
<td>Auditor tenure</td>
<td></td>
</tr>
</tbody>
</table>

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**

| Firm size: it is calculated by logarithm of book value of total assets. | Control variable | Size |
| Financial leverage: ratio of debt to assets. | Control variable | Leva |
| It is calculated by value market of equality divided 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**

\[
\text{DA}_{i,t} = \beta_0 + \beta_1 \text{Auditor} + \beta_2 \text{SIZE} + \beta_3 \text{LEVERAGE} + \beta_4 \text{ROA} + \beta_5 \text{M/B} + \epsilon_{i,t}
\]

**HYPOTHESIS ANALYSIS**

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

\( H_0: \rho_1 = 0 \)
\( H_1: \rho_1 \neq 0 \)

claim

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

<table>
<thead>
<tr>
<th>Type of auditor</th>
<th>independent variable</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>.076</td>
<td>Pearson correlation coefficient</td>
<td>Profit management</td>
</tr>
<tr>
<td>.023</td>
<td>Sig. level</td>
<td></td>
</tr>
<tr>
<td>416</td>
<td>Number</td>
<td></td>
</tr>
</tbody>
</table>

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, H_{0} is rejected at error level of 5% and correlation is confirmed between 2 variables.

Table 4 shows that correlation coefficient is also 0.420 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 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.

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

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:

H_{0}: there is no significance model or linear relationship between two variables.

H_{1}: 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

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:**

**The second sub-hypothesis:**

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

\[ H_{0}: \rho = 0 \]

\[ H_{1}: \rho \neq 0 \]

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

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.
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 correlation in hypothesis among errors is rejected and regression can be used.

<p>| Tab.8. Correlation coefficient and Durbin-Watson test between types of audit firm and profit management |
|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|</p>
<table>
<thead>
<tr>
<th>Durbin-Watson test</th>
<th>Error of estimate norm</th>
<th>Adjust determination co.</th>
<th>Determination co.</th>
<th>Correlation model</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.042</td>
<td>.23430</td>
<td>.164</td>
<td>.174</td>
<td>.417</td>
</tr>
</tbody>
</table>

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 linear 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 linear regression and correlation in chapter 4 and in respect to outputs of SPSS software 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.

**REFERENCES**


