Effect of Audit and Debt Financing Quality on Profit Management of Companies Accepted in Tehran Stock Exchange

Mohammad Kasyaani
Accounting Department, Islamic Azad University, Khoy Branch, Iran

Massoud Dehghani
MSc in Accounting Department, Islamic Azad University, Khoy Branch, Iran.

Roghayeh Eyvaz Naveh Si1
MSc in Accounting Department, Islamic Azad University, Khoy Branch, Iran

Abstract

The purpose of this study was to investigate the effect of audit quality and debt financing on earnings management. In this research, the quality of audit and debt financing is considered as an independent variable and profit management as an associated variable. The criteria for measuring the audit quality of the auditor's tenure, the size of the audit firm, the auditor's specialty, and the independence of the auditor are to measure the financing of both short-term financing (short-term debt to total assets) and long-term debt financing (long-term debt to total assets). Also, for measuring earnings management as a dependent variable, the modified Jones model was used. The spatial domain of the research includes companies admitted to the Tehran Stock Exchange and the realm of time from the beginning of 2010 to 2016, totally due to the restrictions imposed, 134 companies were selected as samples. Testing the research hypotheses using aggregated least squares regression showed that none of the audit quality criteria studied in this research and debt financing had any effect on the management of profit.

Keywords: Audit quality, ownership of profit management, auditor's tenure, auditor's specialty, auditor's independence.


1 Corresponding author’s email: sama.evyaznavahsi@gmail.com
Introduction

One of the items of financial statements that is considered as a measure of performance and profitability of the profit unit is "profit reporting" (Nemazi et al., 2007). Economic decisions are made by investors by assessing the ability of the entity to profit. Therefore, the importance of profit has made investors more aware of the interest rate when making investment decisions. The discretion of managers to use the principles of realization and conformity, estimation and forecasting, and also the application of methods such as changing the method of inventory evaluation, goodwill amortization, current or capital costs, and considering the cost of research and development, and determining the cost of suspicious claims, for example That managers can change profits through their actions. On the one hand, due to the greater awareness of the managers of the company's situation, it is expected to provide information in such a way as to reflect the company's position in the best way. On the other hand, due to reasons such as maintaining the company, receiving rewards and ... managing the unprofitable or unwanted unit, maybe by manipulating the profits, the company's position would be favorable. Under such circumstances, the actual profit with the profit reported in the financial statements is not inconsistent and an event called earnings management occurred. Profit management is important for companies, especially when profit is considered as an indicator for predicting the quality of financial reporting. Profit management is, in fact, a kind of artificial manipulation of profit by management to achieve desired goals (Ebrahimi et al., 2016). One of the main relations of representation is the relationship between the shareholder of a company (kargarm) and its director (broker). The first and most commonly encountered problem of dealership is the conflict of interests between shareholders and managers. Borrowing is one of the best choices for managers. But what creditors are important about credit is the ability to pay the principal and interest on the loan by the borrower. To this end, creditors examine financial statements, and in particular the amount of profit, to assess the financial strength of companies. But what causes them to worry about this is the possibility of an incorrect management intervention in the calculation of profit, which reduces the reported earnings quality. Debt financing due to tax savings and its lower rate is considered as a more favorable financing solution than shareholders. Firms that have a high leverage, if they are not able to meet the obligations of external financing, will be subject to bankruptcy and will not be able to find new creditors in the future. In such a situation, if the company is willing to receive a new loan, it is considered by the creditors in terms of the ability to pay off debts in future periods; therefore, sufficient cash is necessary to maintain its activity and profitability (Izadinia and colleagues, 2013).

Debt financing reduces the conflict of interests between executives and shareholders, and managers in this regard have no reason to hide their economic performance and manipulate their profits. Therefore, debt financing can increase the profitability of companies (Forughi and Mohammadi, 2011). On the other hand, the quality that determines the audit function depends on several factors, such as the auditor's abilities (including knowledge, experience, adaptive power and technical efficiency), and professional performance (including independence, objectivity, professional care, conflict of interests and judgment) (Mujtahadzadeh and Aghaei, 2004). Therefore, the
The purpose of this study was to examine the effect of audit quality and debt financing on earnings management in companies admitted to Tehran Stock Exchange.

**Theoretical Foundations**

In the accounting literature, it is difficult to provide a proper definition of profit management because the boundary between earnings management and financial fraud cannot be clearly defined. Previous research has suggested that financial leverage, especially short-term debt, is an effective way to reduce the problem of representation (Jensen, 1986). But both financial leverage and debt structure may be affected by managers and they are not expected to voluntarily favor the interests of shareholders in choosing debt for their own benefit (Haarford, 2007). Haley and Wallen (1999) argue that profit management occurs when it comes to personal judgment in financial reporting, depending on the misleading of some shareholders about actual performance or the impact on the results of contracts that are reported in accounting figures. Have, do. Di Angelo (1981) states that earnings management often results from the use of managers for the benefits of information asymmetry. Ronen and Yari (2008) state that earnings management is a set of management decisions that lead to short-term earnings reports. He has outlined at least two important issues: firstly, to increase the remuneration of directors provided by investors, profits are disrupted; secondly, actual investors tend to have a better impression of the value of the company. Therefore, the transfer of potential wealth from new investors to old investors, which creates a domestic demand for profit management. On the other hand, with the conflict of interests between managers and shareholders, people like Grossman and Hart and Jensen believe that debt can reduce this conflict of interest. Increase in debt can lead to the activity of managers to reduce the bankruptcy of the company, which in turn leads to activities that increase the market value of the company and maintain the interests of shareholders and managers simultaneously and conflict of interests between shareholders and managers Reduce. Previous research results show that the degree of high leverage potentially increases the level of earnings management, and, on the other hand, increasing financial leverage by reducing the amount of opportunistic behavior of managers leads to a reduction in the management of profits. Companies that face a rise in debt and financial leverage can be involved in managing gains. Increasing financial leverage can be an incentive to transfer earnings management to a genuine profit management.

Audit services play an important role in reducing information asymmetry and reducing the problems of representation between managers, shareholders and creditors (Vilienberg, 1999; Jensen & McLing, 1976). To play this role is important audit quality. While audit quality is an integral part of corporate governance, it is not entirely clear that audit quality and other aspects of corporate governance are complementary or substitute for each other (Diftwand and Francis, 2005). Audit quality is a concept with different definitions for it. Diego Angelo (1981) presented a two-dimensional definition of audit quality: 1. Important distortion should be discovered and 2. Important distortion should be reported. In this way, the quality of audit is a function of the auditor's ability to discover the distortion and degree of independence of the auditor. Palmerros (1988) should define the quality of the audit with the possibility that financial statements are not distorted.
Davidson and Novo (1993) defined the quality of the audit as an auditor's ability to detect and eliminate distortion and manipulation of net profit.

In general, the purpose of the auditors is to protect the interests of the shareholders against the material misstatements in the financial statements, and among them, the incentives of managers to apply personal benefits in the quality of profit prevent the auditors from reaching their goals. By contrast, Auditors can, by increasing the quality of audit and debt financing, discover the management of potential earnings by managers and put managers at a loss to manage their profits. Regarding the research goal, this research seeks to answer the question of how the audit quality and debt financing affect the management of profits.

Background research

Ibrahim Salem Al-Zawabi (2017) examines the relationship between the impact of audit quality and debt financing on earnings management. This research is used to measure earnings management from a modified Jones model in which optional commitments are selected as proxies. The research was also conducted in the period 2006-2012 and the sample included 72 companies. To investigate the effect of this method, the least squares regression has been used. The results showed that the components of audit quality (including auditor's supervision, auditor's size, auditor's expertise and independence) and debt financing (minimum debt) reduce earnings management and, in turn, increase financial reporting. The highest debt boosts the risk of profit management.

Norfahane et al. (2014) in a study entitled The Effect of Particular Risks of Financial Risk and Profit Management: Evidence from Malaysia and Thailand. Their main goal was to examine the difference between the means of earnings management, financial leverage, financial crisis and free cash flow between Malaysia and Thailand. Based on this, 325 companies from Malaysia and 224 companies from Thailand were surveyed. Their results showed that there is a significant difference between earnings management, financial leverage and financial crisis between the two countries. But there is no significant difference between the average free cash flow of the two countries.

Karmir et al. (2013) in a research entitled "The relationship between earnings management and information asymmetry in the context of environmental uncertainty: evidence from Canada." Their research findings showed that there is a meaningful relationship between profit management and information lacking. In addition, the results indicate that environmental uncertainty undermines the relationship between profit management and information asymmetry.

Schollman and Gu (2014) found that there was a negative relationship between audit fees and the possibility for managers to use optional accruals to manage profits when examining the relationship between audit quality and spending on audit fees with profit management.

Karmir et al. (2013) in a research entitled "The relationship between earnings management and information asymmetry in the context of environmental uncertainty:
evidence from Canada." Their research findings showed that there is a meaningful relationship between profit management and information lacking. In addition, the results indicate that environmental uncertainty undermines the relationship between profit management and information asymmetry.

Nehhatti et al. (2013) investigated the impact of financial leverage on real profit management. To this end, they examined 3745 companies during the returns of the Malaysian bourse in 2011. Their results showed that there is a negative and significant relationship between the financial leverage and the true profit management criteria (abnormal operating cash flow, abnormal production costs and abnormal voluntary costs).

Chi et al. (2011) found that the auditor's long-term turnover was linked to increased earnings management, in examining the relationship between audit quality and real income management.

Jordan et al. (2010) found that the four major auditing firms are less likely to focus on gaining profit by examining the effect of audit quality on profit management to achieve the desired benefit.

Ebrahimi et al. (2016) investigated the relationship between financing decisions with various types of earnings management. For this purpose, 107 companies were surveyed. The results of the research show that there is a negative relationship between financial leverage and Jones accrual management. There is also a positive relationship between financial leverage and real income management.

Newnal Nahr et al. (2013) examined the effect of auditor's quality on earnings management. In this research, 50 companies listed in the stock exchange were investigated during the period from 2004 to 2011. The results of the research show that larger audit firms and longer auditor periods have a negative impact on earnings management.

Mojtahed Zadeh and Babae (2012) found that there is an inverse relationship between audit quality and earnings management (measured using optional accruals) in examining the effect of audit quality on earnings management.

Hajiha et al. (2012) examined the impact of industry expertise and audit period on profit management. The results of this study showed that the expertise in the industry and the audit period has a negative impact on earnings management, as well as the profit management capabilities of companies that are audited by industry-specific auditors with an accrued period of over four years are less than other companies.

Foroughi et al. (2011) examined the relationship between debt financing and earnings quality. In this study, several factors affecting the quality of earnings were investigated, including debt financing.

Ebrahim Kurdler and Sidi (2008) examined the impact of the type of audit firm (audit firm and other institutions) and the type of audit opinion on discretionary accruals, and concluded that the only type of audit firm is related to discretionary accruals.
Problems and research hypotheses

The main issue of the research is whether the quality of audit and debt financing on profits management in affiliated companies in Tehran Stock Exchange affects? In this regard, according to the problem of this research, the assumptions are as follows.

Main hypotheses

1. Audit quality affects earnings management.
2. Debt financing has an impact on earnings management.

Hypotheses

1. The auditor's tenure period affects earnings management.
2. The auditor's size affects earnings management.
3. The auditor's expertise affects earnings management.
4. Auditor's independence affects earnings management.
5. Short-term debt financing affects earnings management.

Research method

This research is a descriptive-correlational one in terms of its purpose. The statistical society includes all active companies in Tehran Stock Exchange and the statistical sample includes companies that have the following set of conditions:

1. Companies that have been admitted to the Stock Exchange before the year 2010 and will be on the list until the end of 2016.
2. Investment companies, insurers, banks and financial intermediaries and financial institutions are not the same as the pattern of accruals and cash flows are different from other companies.
3. The companies whose financial year they are due to end in March (to be able to compare more).
4. Companies that did not change the fiscal year during the reviewed period (2011-2013).
5. The companies whose data are required for this research are available.

Considering the above conditions, the sample size of this study was 134 firms using the systematic elimination method for the period under study (2014-1899).
Research variables, operational definitions and the method of calculating variables

The dependent variable

The dependent variable of this earnings management study is. In this study, the accruals are measured separately for accruals. In order to estimate optional accruals, the modified Jones model (presented by Ducho, Salvan, and Sweeney, 1995) is used. Because it controls both business transactions and corporate credit policies. This model is as follows (Chen, 2010).

Model (1)

\[
\frac{TACC_{it}}{TA_{it-1}} = a_0j \left( \frac{1}{TA_{it-1}} \right) + a_1j \left( \frac{\Delta REVi_t}{TA_{it-1}} \right) + a_2j \left( \frac{PPEi_t}{TA_{it-1}} \right) + e_{it}
\]

\(TACC_{it}\): Accumulated Accounts (Profit before Unearned Items minus Operating Cash Flows) in year \(t\) for company \(i\)

\(TA_{it-1}\): Total assets in base year

\(\Delta REVi, t\): Change in income over the year in year \(t\) for \(i\)

\(PPEi, t\): Net amount of property, machinery and equipment in year \(t\) for company \(i\)

\(e_{it}\): The sum of the regression errors is assumed to be non-intersecting and have a normal distribution with a mean of zero.

\(a_2, a_1, a\): Parameters of each company.

Then, these estimation coefficients derived from regression are used to estimate the amount of accruals accounted for each sample company by deducting uncontrolled accruals from accruals as follows.

\[
DACC_{it} = TACC_{it} / TA_{it-1} - NDACC_{it}
\]

Model (2)

\[
NDACC_{it} = a_0j \left( \frac{1}{TA_{it-1}} \right) + a_1j \left( \frac{\Delta REVi_t - \Delta REC_{it}}{TA_{it-1}} \right) + a_2j \left( \frac{PPEi_t}{TA_{it-1}} \right)
\]

\(NDACC_{it}\): The sum of discretionary accruals in year \(t\) for \(i\)

\(\Delta REC_{it}\): Changes in accounts and receivables in year \(t\) for \(i\)

Model (3)

\[
DACC_{it} = TACC_{it} / TA_{it-1} - NDACC_{it}
\]

\(DACC_{it}\): Accounts Receivable Manageable Components in year \(t\) for company \(i\), which is the equivalent of an accrual of accruals.
Independent variables

In this research, the quality of audit and debt financing are considered as independent variables of this research.

Audit quality

To measure the quality of the audit, the following variables are considered:

1. Auditor's tenure: The auditor's tenure is related to the auditor's knowledge and expertise. No matter how much the auditor's length of office is and the auditor's rotation is lower, we can expect higher audit quality (Gell et al., 2009). This indicator has been used in several researches (eg, Namazee et al., 2010; Mojtahed Zadeh and Babaei, 2012) as an indicator of audit quality. If the auditor has audited the financial statements of the company for at least 5 years, one is otherwise zero and the symbol is AUDTENU.

2. Audit size: In this research, the Audit Firm and Good Governorate Institute as a high-value, high-ranking institution (grade 1) and in contrast to other audit firms (audit firms of the member of the Accredited Accountability Association) whose size to the Audit Organization Smaller, considered as low credit and reputation institutions (Grade 2). If the auditor of the master company during the research period has been an audit firm, the amount of the virtual variable of the size of the audit is equal to one, otherwise the amount is equal to zero (Medicine and Hosseini, 1396).

3. Auditor's Expertise in the Industry: This variable is based on the studies of Don Wilson (2003), Sun and Liu (2013) and Etemadi et al. (2009), from the division of the total assets of all employers of a particular auditing institution into a particular industry, division The total assets of the employers of that industry comes from the symbol AUDSPCIAL.

4. Auditor's Independence: In order to measure the independence of the auditor, the audit firm is independent from the financial independence of the auditor due to its lack of financial impact, independent from the auditor, and the audit firms of the member of the public accountants community because of their continued existence Auditing fees and increasing the number of their customers are lacking in independence, and the symbol is AUDIND.

Debt financing

Debt financing is classified into two categories, the method of calculation of which is as follows:

1- Short-term debt financing: From short-term debt breakdown to total assets.

\[ DST = \frac{STD_{it}}{ASSETS_{it}} \]
2- **Long-term financing: from long-term debt-to-asset distribution.**

\[
DLT = \frac{LTD_t}{ASSETS_t}
\]

where in :

DLT: Short-term financing

LTD: long-term debt

**Control variables**

In this research, the following control variables are used to equate companies in terms of other influential factors.

- **Size of the company:**
  
  The size of the company, which is calculated as the natural logarithm of the company's equity market value. Greater companies are expected to invest more because of lower information asymmetry and greater access to foreign financial resources (Stein, 2003).

- **Financial expertise of board members:**
  
  If the board has an expert member (having a degree or financial account), otherwise it will be zero (Kindness and colleagues, 1394).

- **Independence of the Board of Directors:**
  
  Represents the proportion of non-executive members of the board of directors to the entire board of directors. Non-executive director is a member of the board of directors who has no executive responsibility in the company. According to the theory of representation, non-executive directors oversee other board members and their salaries will be paid on the basis of their hours of attendance (Benjamin And Oliqui, 2009).

  The method of calculation is to divide the number of non-executive members of the board of directors into the total number of board members. (Qalibaf al-Isl, Rezai, 1386).

- **Ownership of institutional shareholders:**
  
  Is equal to the total amount of ownership of the institutional investors for which we have considered the INSOWN symbol. According to the article 21 of Article 1 of the Law on the Securities Market of Iran, institutional investors are: banks and insurers, holdings, investment companies, the pension fund, the capital investment company and the capital- (Gharib et al., 2017).

- **Management Ownership:**
In this research, according to Amir Azad et al. (2014), the total percentage of shares in management's ownership (board) is used to measure the percentage of ownership of management. For which the owner icon is considered

✓ Return on Assets:

This variable is calculated by dividing the operating profit by the total assets. By increasing profitability, the auditors' responsibility and commitment to probable claims are profitable (Venkatman et al., 2005).

In this research, we tried to test the hypotheses through the following regression model to find out the relationship between the independent and dependent variables in the model.

Relationship (1)

\[
DACC_{it} = \alpha + \beta_1 DF + \beta_2 AQ + \beta_3 SIZE + \beta_4 BR + \beta_5 BI + \beta_6 INSOWN + \beta_7 ROA
\]

where in:

✓ DACC: Accounts Receivable Management (Dependent Variable)
✓ DF: Debt financing (independent variable)
✓ AQ: Audit quality (independent variable)
✓ SIZE: Company size (control variable)
✓ BR: Financial expertise of the board of directors (control variable)
✓ BI: Board independence (control variable)
✓ INSOWN: Ownership of institutional shareholders (control variable)
✓ Owner: Management Ownership (Control Variable)
✓ ROA: Return on Assets (Control Variable)

Analysis of research findings

Descriptive Indicators

In order to get to know more about the statistical sample and the variables studied, a summary of the status of descriptive statistics of the research variables has been calculated. Table 1 summarizes the descriptive statistics of model variables for companies.
Table 1. Descriptive indicators - Quantitative variables of research

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Observations</th>
<th>Average</th>
<th>Middle</th>
<th>Standard deviation</th>
<th>Min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAC</td>
<td>938</td>
<td>-0.33</td>
<td>-0.028</td>
<td>0.49</td>
<td>-2.59</td>
<td>2.03</td>
</tr>
<tr>
<td>DEBT_ST</td>
<td>938</td>
<td>0.50</td>
<td>0.51</td>
<td>0.22</td>
<td>0.000</td>
<td>1.75</td>
</tr>
<tr>
<td>DEBT_LT</td>
<td>938</td>
<td>0.11</td>
<td>0.05</td>
<td>0.15</td>
<td>0.000</td>
<td>0.94</td>
</tr>
<tr>
<td>SIZE</td>
<td>938</td>
<td>6.08</td>
<td>6.02</td>
<td>0.64</td>
<td>4.35</td>
<td>8.31</td>
</tr>
<tr>
<td>BI</td>
<td>938</td>
<td>0.66</td>
<td>0.60</td>
<td>0.19</td>
<td>0.000</td>
<td>1</td>
</tr>
<tr>
<td>INSOWN</td>
<td>938</td>
<td>0.63</td>
<td>0.70</td>
<td>0.26</td>
<td>0.000</td>
<td>1</td>
</tr>
<tr>
<td>OWNSTR</td>
<td>938</td>
<td>0.54</td>
<td>0.63</td>
<td>0.32</td>
<td>0.000</td>
<td>1</td>
</tr>
<tr>
<td>ROA</td>
<td>938</td>
<td>0.10</td>
<td>0.09</td>
<td>0.15</td>
<td>-0.78</td>
<td>0.71</td>
</tr>
</tbody>
</table>

Table 2. Descriptive indicators - qualitative variables of research

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Observations</th>
<th>Answer</th>
<th>Abundance</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDTENU</td>
<td>938</td>
<td>(1) Yes</td>
<td>114</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0) NO</td>
<td>824</td>
<td>0.88</td>
</tr>
<tr>
<td>AUDSIZE</td>
<td>938</td>
<td>(1) Yes</td>
<td>275</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0) NO</td>
<td>663</td>
<td>0.71</td>
</tr>
<tr>
<td>AUDSPCIAL</td>
<td>938</td>
<td>(1) Yes</td>
<td>484</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0) NO</td>
<td>454</td>
<td>0.49</td>
</tr>
<tr>
<td>AUDINDAF</td>
<td>938</td>
<td>(1) Yes</td>
<td>240</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0) NO</td>
<td>698</td>
<td>0.75</td>
</tr>
<tr>
<td>BRDFINEXP</td>
<td>938</td>
<td>(1) Yes</td>
<td>452</td>
<td>0.48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0) NO</td>
<td>486</td>
<td>0.52</td>
</tr>
</tbody>
</table>

**Maneuverability test of research variables**

To test the reliability of the variables, the root test of the full dice unit is used. Regarding the significance level of each test, at 95% level, we can say that the independent and control variables were valid during the research period.

Table 3. Summary of root test results of the Dickey Fuller test

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Test statistic</th>
<th>Significance level</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAC</td>
<td>-14.53</td>
<td>0.000</td>
<td>PAYA</td>
</tr>
<tr>
<td>AUDTENU</td>
<td>-17.22</td>
<td>0.000</td>
<td>PAYA</td>
</tr>
<tr>
<td>AUDSIZE</td>
<td>-27.96</td>
<td>0.000</td>
<td>PAYA</td>
</tr>
<tr>
<td>AUDSPCIAL</td>
<td>-28.06</td>
<td>0.000</td>
<td>PAYA</td>
</tr>
<tr>
<td>AUDINDAF</td>
<td>-28.02</td>
<td>0.000</td>
<td>PAYA</td>
</tr>
</tbody>
</table>
**Correlation between variables**

The correlation coefficient is used to check the relationships between variables, the type of relationship (direct or inverse) and the relationship. The correlation coefficient is always between 1 and 1. In the absence of a relationship between the two variables, the two variables are independent, the amount will be zero, and the greater the absolute value of the resulting number, indicates a high correlation between the two variables and the positive and negative sign for the relationship. High correlation between independent variables causes a co-linear problem. Gujarati (2004) suggests that if the correlation between the independent variables is greater than 0.80, the linear problem is a serious problem and further investigation is needed. The most important assumption of the Pearson correlation test is the assumption of the normal distribution of variables. Whenever the distribution of variables is not normal and their relationship is not linear, it is better to use the spearman correlation test. The results of Pearson correlation test are shown in Table 4.

Table 4. Pearson correlation matrix between variables

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>DAC</th>
<th>AUDSPECIAL</th>
<th>AUDTENU</th>
<th>AUDSIZE</th>
<th>AUDINDAFAUDST</th>
<th>DEBT_LT</th>
<th>DEBT_LT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAC</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDSPECIAL</td>
<td>0.08</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDTENU</td>
<td>0.04</td>
<td>0.32</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDSIZE</td>
<td>0.05</td>
<td>0.24</td>
<td>0.31</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDINDAFAUDST</td>
<td>0.02</td>
<td>0.23</td>
<td>0.42</td>
<td>0.31</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBT_ST</td>
<td>0.01</td>
<td>-0.03</td>
<td>0.11</td>
<td>0.11</td>
<td>0.11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DEBT_LT</td>
<td>-0.02</td>
<td>0.13</td>
<td>0.08</td>
<td>0.08</td>
<td>0.09</td>
<td>-0.28</td>
<td>1</td>
</tr>
</tbody>
</table>

Inequality test of variances

The non-uniform variance test indicates that the variance is not equal to all i (sections). The Bryus-Pagan-Gadafari test was used to test the consistency of variances. One of the classical assumptions is the uniformity of the variance of the components of disturbance...
in different periods, the violation of this assumption creates a problem called anomalies of variance. Because the variance of the disrupted component is equal to the variance of the variable, the problem of heterogeneity of the variance is related to the lack of the same variance of the dependent variable in different periods. If the significance level of this test is less than 5%, the assumption of variance equivalence is rejected; if this probability exceeds 5%, the assumption of the variance of the variance is not rejected.

The summary of the results of this test in Table 5 is as follows:

Table 5. Equivalence variances Breusch-Pagan-Godfrey

<table>
<thead>
<tr>
<th>models</th>
<th>F value</th>
<th>Df</th>
<th>Sig. level</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>0.81</td>
<td>F(7.93)</td>
<td>0.57</td>
<td>The assumption of variance of variance is not rejected</td>
</tr>
<tr>
<td>Model 2</td>
<td>1.15</td>
<td>F(7.93)</td>
<td>0.32</td>
<td>The assumption of variance of variance is not rejected</td>
</tr>
<tr>
<td>Model 3</td>
<td>0.86</td>
<td>F(7.93)</td>
<td>0.53</td>
<td>The assumption of variance of variance is not rejected</td>
</tr>
<tr>
<td>Model 4</td>
<td>1.02</td>
<td>F(7.93)</td>
<td>0.41</td>
<td>The assumption of variance of variance is not rejected</td>
</tr>
<tr>
<td>Model 5</td>
<td>0.80</td>
<td>F(7.93)</td>
<td>0.58</td>
<td>The assumption of variance of variance is not rejected</td>
</tr>
<tr>
<td>Model 6</td>
<td>0.89</td>
<td>F(7.93)</td>
<td>0.51</td>
<td>The assumption of variance of variance is not rejected</td>
</tr>
</tbody>
</table>

Panel test or money being data

To test the data, we first need to identify the panel or the money. To do this, test F. Limer runs. If in this test, the level of significance is less than 5%, the data is a panel (board), otherwise the money (combination). After identifying the type of data, their fixed and random effects should be determined. Huns man's test is also carried out, if the level of significance is less than 5%, the effects are fixed and otherwise they are considered to be a coincidence.

Table 6. The results of the examinations of F. Letter and Hausman

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>F – Limer statistics</th>
<th>S - Level</th>
<th>Result</th>
<th>F – Limer statistics</th>
<th>S - Level</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>7.42</td>
<td>0.000</td>
<td>PANEL</td>
<td>20.95</td>
<td>0.004</td>
<td>Fixed effects</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>7.47</td>
<td>0.000</td>
<td>PANEL</td>
<td>20.02</td>
<td>0.006</td>
<td>Fixed effects</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>7.46</td>
<td>0.000</td>
<td>PANEL</td>
<td>21.56</td>
<td>0.003</td>
<td>Fixed effects</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>8.05</td>
<td>0.000</td>
<td>PANEL</td>
<td>20.35</td>
<td>0.002</td>
<td>Fixed effects</td>
</tr>
<tr>
<td>Hypothesis 5</td>
<td>7.48</td>
<td>0.000</td>
<td>PANEL</td>
<td>2.28</td>
<td>0.01</td>
<td>Fixed effects</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>7.21</td>
<td>0.000</td>
<td>PANEL</td>
<td>20.12</td>
<td>0.005</td>
<td>Fixed effects</td>
</tr>
</tbody>
</table>
Model Estimation and Review of Research Hypotheses

The results of the first, second and third hypotheses:

1) The auditor's tenure period affects earnings management.

2) Auditor's size affects earnings management.

3) Auditor's expertise influences earnings management.

Table 7. The results of the test of the estimation of the first to third models - fixed effect

<table>
<thead>
<tr>
<th>Theories</th>
<th>Hypothesis 1</th>
<th>Hypothesis 2</th>
<th>Hypothesis 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COEF</td>
<td>Prob</td>
<td>COEF</td>
</tr>
<tr>
<td>Width from origin</td>
<td>-0.93</td>
<td>0.01</td>
<td>-0.87</td>
</tr>
<tr>
<td>AUDTENU</td>
<td>0.02</td>
<td>0.86</td>
<td>-</td>
</tr>
<tr>
<td>AUDSIZE</td>
<td>-</td>
<td>-</td>
<td>0.06</td>
</tr>
<tr>
<td>AUDSPCIAL</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.14</td>
<td>0.000</td>
<td>0.13</td>
</tr>
<tr>
<td>BRDFINEXP</td>
<td>1.54</td>
<td>0.00</td>
<td>1.51</td>
</tr>
<tr>
<td>BI</td>
<td>-0.15</td>
<td>0.34</td>
<td>-0.14</td>
</tr>
<tr>
<td>INSOWN</td>
<td>0.18</td>
<td>0.14</td>
<td>0.17</td>
</tr>
<tr>
<td>OWNSTR</td>
<td>-0.19</td>
<td>0.08</td>
<td>-0.20</td>
</tr>
<tr>
<td>ROA</td>
<td>0.20</td>
<td>0.38</td>
<td>0.20</td>
</tr>
<tr>
<td>F statistics</td>
<td>6.70</td>
<td></td>
<td>6.76</td>
</tr>
<tr>
<td>S - L. F statistics</td>
<td>0.00</td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>C. determination</td>
<td>0.09</td>
<td></td>
<td>0.09</td>
</tr>
<tr>
<td>D.W</td>
<td>1.98</td>
<td></td>
<td>1.97</td>
</tr>
</tbody>
</table>

The results of the analysis of the linear regression model of the first, second and third hypotheses of the study are described in Table 7. For statistical significance of the whole model, F statistics are used. With regard to the probability of the calculated F, all three hypotheses in Table 7 are less than 5% (00/0), therefore, the significance of the model is confirmed and it is determined that at least one of the coefficients of the opposite regression model is zero. Watson's camera test was used to determine the assumption of non-self-correlation in the results of the regression equation. Given the fact that the Watson camera's statistics in all three above hypotheses are between 1.5 and 2.5, we can say that there are no first-order self-correlation residues. The amount of coefficient of determination in the estimated results of the regression model of the research hypothesis indicates that the percentage of the behavior of the dependent variable is explained by independent and control variables.

In the significance of the coefficients according to the results presented in Table 7., since the probability of t for the independent variable coefficient in all three hypotheses is greater than 5% (86/0, 39/0 and 44/0), as a result The existence of a significant impact on the auditor's tenure, auditor's size, and auditor's specialty in the industry on earnings
management is not confirmed at 95% confidence level, and all three of the first hypotheses of the research are rejected.

The results of the fourth, fifth, and sixth hypotheses:

4) Auditor's independence affects earnings management.

5) Short-term financing influences earnings management.

6) Long-term financing influences earnings management.

Table 8. Results of the Fourth to Sixth Assessment Estimates - Fixed Effects

<table>
<thead>
<tr>
<th>Theories</th>
<th>Hypothesis 4</th>
<th>Hypothesis 5</th>
<th>Hypothesis 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width from origin</td>
<td>COEF</td>
<td>Prob</td>
<td>COEF</td>
</tr>
<tr>
<td>AUDTENU</td>
<td>-0.94</td>
<td>0.00</td>
<td>-1</td>
</tr>
<tr>
<td>DEBT_ST</td>
<td>-0.01</td>
<td>0.88</td>
<td>-</td>
</tr>
<tr>
<td>DEBT_LT</td>
<td>0.09</td>
<td>0.54</td>
<td>-</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.14</td>
<td>0.01</td>
<td>0.14</td>
</tr>
<tr>
<td>BRDFINEXP</td>
<td>1.54</td>
<td>0.00</td>
<td>1.52</td>
</tr>
<tr>
<td>BI</td>
<td>-0.15</td>
<td>0.33</td>
<td>-0.14</td>
</tr>
<tr>
<td>INSOWN</td>
<td>0.18</td>
<td>0.14</td>
<td>0.18</td>
</tr>
<tr>
<td>OWNSTR</td>
<td>-0.19</td>
<td>0.07</td>
<td>-0.19</td>
</tr>
<tr>
<td>ROA</td>
<td>0.19</td>
<td>0.38</td>
<td>0.25</td>
</tr>
<tr>
<td>F statistics</td>
<td>6.70</td>
<td>6.72</td>
<td>6.81</td>
</tr>
<tr>
<td>S - L. F statistics</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>C. determination</td>
<td>0.09</td>
<td>0.08</td>
<td>0.09</td>
</tr>
<tr>
<td>D.W</td>
<td>1.98</td>
<td>1.98</td>
<td>1.99</td>
</tr>
</tbody>
</table>

The results of the analysis of the linear regression model of the first, second and third hypotheses of the study are described in Table 7. For statistical significance of the whole model, F statistics are used. With regard to the probability of the calculated F, all three hypotheses in Table 7 are less than 5% (00/0), therefore, the significance of the model is confirmed and it is determined that at least one of the coefficients of the opposite regression model is zero. Watson's camera test was used to determine the assumption of non-self-correlation in the results of the regression equation. Given the fact that the Watson camera's statistics in all three above hypotheses are between 1.5 and 2.5, we can say that there are no first-order self-correlation residues. The amount of coefficient of determination in the estimated results of the regression model of the research hypothesis indicates that the percentage of the behavior of the dependent variable is explained by independent and control variables.

In the significance of the coefficients according to the results presented in Table 7, since the probability of t for the independent variable coefficient in all three hypotheses is greater than 5% (0.88, 0.54 and 0.24), as a result The existence of significant influence
of auditor's independence, short-term financing and long-term financing on earnings management at 95% confidence level has been rejected and all three hypotheses of the research are not accepted.

**Discussion and Conclusion**

Providing quality financial information is one of the key issues in making the right decision. Different companies have different motivations and ideas for providing information according to the conditions governing their business environment and the demand of the stakeholders. In terms of providing information on profits, managing profits and achieving a certain threshold of profit is one of the topics that are important for active sectors in the financial sector. One of the important and important issues in the field of profit management with the aim of achieving a certain threshold of profit is the quality of audit. In this research, the quality of audit and debt financing on profits management of companies accepted in Tehran Stock Exchange has been investigated. For this research, 134 companies listed in Tehran Stock Exchange have been investigated for a period of 7 years (2016-2010). Also, to test the research hypotheses, the data panel model (the effects of the effect) is used. In general, the results indicate that there is no significant relationship between the quality of audit and debt financing with earnings management. The results of this research are consistent with the results of Khajavi et al. (2015), Myers et al. (2003) and Chen et al. (2005), and contradict the results of Burgstaler et al. (2006). Also, with the results of the research, Namari et al. (2011) agree with the auditor's variable and disagrees with the auditor's tenure. On the other hand, there was no relationship between financing through earnings management debt. Debt contracts in Iran are not of much concern to managers, but they are considered in the Western countries and have a positive effect on debt financing on reported earnings quality. In contrast to the increase in the level of debt in Iranian companies, managers tend to manipulate their profits and thereby destroy the quality of profit. Because managers are more motivated to profit from the financial position of companies through profit manipulation (Norwas et al., 2005). The results of this hypothesis contradict the results of Moradi (2007), Amiri et al (2012) and Jensen (1986), and agree with the results of Isadinia and colleagues (2013). According to the results of the research, the following suggestions can be made:

It is suggested that in future research, other corporate governance mechanisms (such as ownership structure, board structure, and audit committee) should be considered regarding the prevention of earnings management. Training of managers and shareholders can help to enforce corporate governance. Shareholders should be aware of the benefits of the existence of independent and independent directors in the board of directors, ownership structure, institutional investors, etc., which are among the criteria for corporate governance.

Also, other audit quality criteria such as auditor's expertise in the industry are also considered. Finally, it is argued that due to the limited timeframe of the research as well as the renewal of presentation of financial statement items in the next period, the results of the research should be carefully applied.

Some of the important issues that can be addressed in future research are as follows:
1. Investigate the relationship between financial leverage and profit management in a nonlinear (share) manner.

2. Investigate the relationship between types of earnings management and audit quality

3. In this research, the companies listed in the Tehran Stock Exchange were investigated, so it is suggested that future research in this field be investigated in the meta-exchange companies.

According to all researches, this research also has the following limitations:

✓ Failure to control some of the factors affecting the results of the research, including the impact of variables such as economic factors, political conditions, corporate lives, laws and regulations, etc., are beyond the reach of the researcher, may affect the study of relationships.

✓ Since the historical data has been used to compute the research variables, the information on the financial statements prepared on the historical cost basis can be deducted from the current results if the information is adjusted for inflation.

✓ The limitation of access to financial information of companies led to the use of companies admitted to the Tehran Stock Exchange to conduct research, so it is suggested that future research of other companies (non-corporations) be investigated.

✓ Also, stock market prosperity or recession is one of the factors influencing the performance of companies that is not considered in the models of this research.

✓ The existence of inflation causes financial information not to accurately reflect the financial position and performance of companies. Therefore, depending on the effect of inflation, different results may be obtained.

✓ Due to the limited statistical community of the companies admitted to the Tehran Stock Exchange, the results of other companies should be taken with caution.

✓ The results of this study are obtained at the level of the whole company without any distinction based on the type of industry, and different results can be obtained for each of the industries separately.

References


Alavi Tabari, Seyyed Hossein, Sultan Khalifa, Sayed Ahmad and Shahabandian, Neda (2009); "Audit Quality and Profit Earnings", Accounting Research, No. 3.


Izadinia, Nasser, Rabiei, Hamed and Hamidian, Narges (2013); "Investigating the Relationship between Financial Leverage and Real Profit Management of Companies Accepted in Tehran Stock Exchange", Journal of Accounting Progress, Volume 1, Issue 5, Pages 33 -54

Khajavi, Shokraleh and Gorgani Firouz Jah (2014); "Investigating the Relationship Between the Features of the Board of Directors and the Methods of Financing the Companies Accepted in Tehran Stock Exchange", Journal of Accounting and Auditing Research, 21, pp. 24-47.

Mehrbani, Mehdi, Zelli, Hassan, Malihei Ali (1394); "Reviewing the Board of Directors' Characteristics on Accounting Conservatism in the Companies Accepted in Tehran Stock Exchange, Audit Knowledge, Vol. 14, No. 58, pp. 171-188.

Mojtahedzadeh, Vida and Aghaei, Parvin (2004); "Factors Affecting the Quality of Auditing Independent from the Perspectives of Independent Auditors and Users"), Accounting and Auditing Reviews, No. 38, pp. 53-76.


Namazi, Mohammad, Bayazidi, Anvar and Jabarzadeh, Kangrolouei Saeed (2011); "The Relationship between Audit Quality and Earnings Management of Companies Accepted in Tehran Stock Exchange, Accounting Research, Third Year, No. 9, pp. 4-24.


