Examining the Effect of Discretionary Accruals on Audit Quality in Companies Listed on Tehran Stock Exchange

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Abstract

The aim of this study is to evaluate the effect of discretionary accruals on audit quality in 105 companies listed on Tehran Stock Exchange from 2009 to 2013; it has been tested using multiple regressions by controlling determinants of audit quality. In this study, the sample size was selected among 478 companies listed on the Stock Exchange as systematic elimination. There has been used Excel and Eviews software in all statistical techniques. In this study, four criteria have been used as an indicator of audit quality: restated financial statements, type of auditor opinion, auditing institute size and specialization of auditor industry. Accordingly, there were developed four hypotheses. Results of the research hypotheses show a negative relationship between auditing institute size, auditor opinion and specialization of auditor industry with discretionary accruals. There is also a positive relationship between the restated financial statements with discretionary accruals.

Keywords: discretionary accruals, the restated financial statements, auditing institute size, Tehran Stock Exchange.
Introduction
Due to provide audit services, independent auditors play an important role in maintaining public interest in capital markets. Auditing report is one of cases that can be used as a guide for investors when making decisions. Poor quality of the reports can lead to resource misallocation in the community. In fact, quality and credibility of audit report depends on auditor independence from his employer. However, in practice, management influence of the studied company, the issues related to select and present information to auditors, the identified objectives or passing them are significant obstacles in auditors’ independent.
Bankruptcy of large companies at the beginning of this century caused that the public thoughts focus on reliability of financial statements. Regulators and developers of accounting standards as well as auditing are trying to improve quality of auditing through effective legislation on auditor independence. In general, regulators and capital market participants interest to know whether management of corporate resources can undermine auditor independence and reduce auditing quality.

Research History
In a research, Etonen et al found that auditing quality is related with gender of auditing partners. They measured auditing quality through discretionary accruals (earnings management). They showed that the audited companies by a female partner have less earnings management compared with other companies.
Tsiorido and Spatis showed that auditor's opinion has no significant correlation with earnings management. Financial indicators of employer company such as profitability and firm size are more effective in auditor's decision concerning modification of its report regarding ambiguity of to continue activities than earnings management.
In his study using data of 392 Chinese enterprises, Sun (2014) examined the relationship between the paid remunerations to managers and profit manipulation. They concluded that the possibility of profit manipulation will be increased by increasing the paid remunerations to managers.
In a research, Rahmani and Montazerghaem (2013) tested the motives of cash flow management from operations in companies listed on Tehran Stock Exchange empirically. The research results indicate a significant relationship between cash flow from operations with profit less sustainability and between profit divergence and cash flow from operations.
The conducted research by Banimahd et al (2014) suggests a significant relationship between earnings management, firm size, profitability, debt ratio, auditing fee and state-owned with number of provisions in auditing before commenting.
In his thesis, Mohammadpur (2015) examined the relationship between auditor's report and earnings management in listed companies on Tehran Stock Exchange from 2004 to 2013. The study attempts to investigate the relationship between types of the modified comment with earnings management.

Research Hypotheses
Discretionary accruals have a significant impact on the restated financial statements for stock companies.
Discretionary accruals have a significant impact on audit commence for stock companies. Discretionary accruals have a significant impact on auditing firm size for stock companies. Discretionary accruals have a significant impact on auditor industry specialization for stock companies.

**Research Methodology**
This study is applicable objectively; it is a descriptive-correlation study in terms of research type; it is a post-event research in terms of time dimension that uses historic information of the sample companies. There has been used Excel and Eviews software to analyze data.

**Research Model**
In this study, discretionary accrual is considered as the independent variable that is obtained by remaining total accruals. The modified Jones Model has been used to calculate the accrual. Firstly, total accrual is calculated by the following equation:

\[ TA = \Delta REC + \Delta Inv + \Delta OCA - \Delta AP - DEP \]

Where:
- \( TA \): total accruals
- \( \Delta REC \): changes in receivable accounts
- \( \Delta Inv \): changes in inventories
- \( \Delta OCA \): changes in non-current assets
- \( \Delta AP \): changes in payable accounts
- \( DEP \): the accumulated depreciation

Then abnormal accruals are obtained from remaining the regression by substituting the obtained accruals from the above equation.

\[ \frac{(TAIT / Ait-1)}{\alpha_1 (1AIT-1) + \alpha_2 (\Delta SALITAIT-1-\Delta RECITAIT-1) + \alpha_3 (PPEITAIT-1) + UIT} \]

Where:
- \( TA \): total accruals
- \( \Delta SALIT \): change in sales volume of company \( i \) between years \( t \) and \( t-1 \)
- \( \Delta RECIT \): change in receivable accounts of company \( i \) between years \( t \) and \( t-1 \)
- \( PPEIT \): properties, machinery and equipments of company \( i \) between years \( t \) and \( t-1 \)
- \( TAIT \): company assets in year of \( t-1 \)
- \( UIT \): error value for company \( i \) in year of \( t \)

**Statistical Community and Sample**
The study period is from 2009 to 2013. Its population consists of all companies listed on Tehran Stock Exchange. The research territory includes all companies (limited) listed in Tehran Stock Exchange.

**Testing Hypotheses**
Table 4.4 shows the results of Logit model. F-value of this model is 46.525 and its possibility is 0.000.
Table 4.4. Results of estimating research first model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable coefficient</th>
<th>Z-statistics</th>
<th>Error probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discretionary accruals</td>
<td>1.449</td>
<td>4.031</td>
<td>0.000</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.196</td>
<td>-3.0251</td>
<td>0.002</td>
</tr>
<tr>
<td>ROA</td>
<td>-1.756</td>
<td>-2.501</td>
<td>0.012</td>
</tr>
<tr>
<td>MB</td>
<td>0.0863</td>
<td>0.694</td>
<td>0.487</td>
</tr>
<tr>
<td>Debt-to-equity ratio</td>
<td>0.0713</td>
<td>0.930</td>
<td>0.351</td>
</tr>
<tr>
<td>Auditing firm size</td>
<td>-0.227</td>
<td>-3.989</td>
<td>0.001</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.924</td>
<td>3.790</td>
<td>0.000</td>
</tr>
</tbody>
</table>

McFadden coefficient of determination | 0.063
LR statistic | 46.525
LR statistic probability | 0.000
Restricted likelihood Log | -368.057
Unrestricted likelihood Log | -0.581

Testing the first hypothesis
Discretionary accruals have a significant impact on the restated financial statements.
According to the results of Table 4.4, the probability of $H_0$ about the effect of discretionary accruals on the restated financial statements is 0.000 and the variable coefficient is 1.499. Therefore, discretionary accruals have a significant negative impact on the restated financial statements. There is also a significant negative relationship between variables of firm size control, return on assets and auditing firm size with the restated financial statements; but there is no significant relationship between variables of debt-to-equity ratio and the ratio of market value to book value of equity with the restated financial statements.

Results of testing the second hypothesis
Table 4.5 shows results of estimating the second model. In this model, LR-value is 33.557 and its probability is 0.000.

Table 4.5. Results of testing the second hypothesis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable coefficient</th>
<th>Z-statistics</th>
<th>Error probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discretionary accruals</td>
<td>-1.053</td>
<td>-3.153</td>
<td>0.002</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.169</td>
<td>2.822</td>
<td>0.005</td>
</tr>
<tr>
<td>ROA</td>
<td>-1.644</td>
<td>-2.72</td>
<td>0.007</td>
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<tr>
<td>MB</td>
<td>0.08</td>
<td>0.695</td>
<td>0.487</td>
</tr>
<tr>
<td>Debt-to-equity ratio</td>
<td>-1.191</td>
<td>-1.698</td>
<td>0.09</td>
</tr>
<tr>
<td>Auditing firm size</td>
<td>0.169</td>
<td>0.855</td>
<td>0.393</td>
</tr>
<tr>
<td>Intercept</td>
<td>-1.835</td>
<td>-2.258</td>
<td>0.024</td>
</tr>
</tbody>
</table>
Testing the second hypothesis

Discretionary accruals have a significant impact on specialization of auditor industry.

According to the results of Table 4.5, the probability of \( H_0 \) about the effect of discretionary accruals on auditor comment is 0.001 and the variable coefficient is -1.052. Therefore, discretionary accruals have a significant negative impact on auditor comment. There is also a significant positive relationship between variables of return on assets control and auditing firm size with auditor comment; but there is no significant relationship between other variables with auditor comment.

Results of testing the third hypothesis

Table 4.6 shows results of estimating the third model. In this model, LR-value is 43.354 and its probability is 0.000.

Testing the third hypothesis

Discretionary accruals have a significant impact on auditing firm size.

According to the results of Table 4.6, the probability of \( H_0 \) about the effect of discretionary accruals on auditing firm size is 0.000 and the variable coefficient is -1.755. Therefore, discretionary accruals have a significant negative impact on auditing firm size. There is also a significant positive relationship between variables of return on assets control and auditing firm size with auditor comment; but there is no significant relationship between other variables with auditor comment.
Results of testing the fourth hypothesis
Table 4.7 shows results of estimating the fourth model. In this model, LR-value is 160.861 and its probability is 0.000.

Table 4.7. Results of testing the fourth hypothesis

<table>
<thead>
<tr>
<th>Model</th>
<th>Specify = α1 + α2DAit + α3lnait + α4ROAit + α5BIG4it + α6DEit + α7MBit + εIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Variable coefficient</td>
</tr>
<tr>
<td>Discretionary accruals</td>
<td>-1.785</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.234</td>
</tr>
<tr>
<td>ROA</td>
<td>3.134</td>
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<tr>
<td>MB</td>
<td>-0.271</td>
</tr>
<tr>
<td>Debt-to-equity ratio</td>
<td>-0.091</td>
</tr>
<tr>
<td>Auditing firm size</td>
<td>3.624</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.588</td>
</tr>
<tr>
<td>McFadden coefficient of determination</td>
<td>0.222</td>
</tr>
<tr>
<td>LR statistic</td>
<td>160.861</td>
</tr>
<tr>
<td>LR statistic probability</td>
<td>0.000</td>
</tr>
<tr>
<td>Restricted likelihood Log</td>
<td>-361.831</td>
</tr>
<tr>
<td>Unrestricted likelihood Log</td>
<td>-0.474</td>
</tr>
</tbody>
</table>

Testing the fourth hypothesis
Discretionary accruals have a significant impact on auditing firm size.

According to the results of Table 4.7, the probability of H₀ about the effect of discretionary accruals on specialization of auditor industry is 0.000 and the variable coefficient is -1.784. Therefore, discretionary accruals have a significant negative impact on specialization of auditor industry. There is also a significant negative relationship between variables of firm size control, debt-to-equity ratio and the ratio of market value to book value of equity with specialization of auditor industry; but there is a significant positive relationship between variables of return on assets control and auditing firm size with specialization of auditor industry.

Conclusion
Results related to the first hypothesis
The research first hypothesis shows the relationship between discretionary accruals and the restated financial statements. The results of this hypothesis indicate a positive significant relationship between discretionary accruals with the restated financial statements.
Reviewing financial statements of companies listed on Tehran Stock Exchange shows that most companies have prior adjustments in their financial statements. Annual adjustments show a negative message about credibility of financial statements. Therefore, it can be said that
discretionary accruals increase the possibility of restating financial statements and consequently, reduce auditing quality. The research results are consistent with the obtained results by Becker et al (1998), Chen et al (2005), Srinivasan (2005), Jordan et al (2010) and Jordan Payne (2011).

Results related to the second hypothesis
The research second hypothesis investigates the relationship between discretionary accruals and auditor report. The results of this hypothesis indicate a significant negative relationship between discretionary accruals with auditor report. According to this hypothesis, it can be argued that if auditing process can reduce earnings management, auditing quality will be increased. Therefore, the more earnings management, the more number of clauses of audit report and issuing the modified (non-acceptable) auditing report. The research results are consistent with the obtained results by Francis and Krishnan (1999), Barreto et al (2000) and Berdsha et al (2001); while they are inconsistent with the obtained results by Butler and et al.

Results related to the third hypothesis
The research third hypothesis investigates the relationship between discretionary accruals and auditing firm size. The results of this hypothesis indicate a significant negative relationship between discretionary accruals with auditing firm size. The research results are consistent with the obtained results by Diss and Jiraks (1992), Becker et al (1998), Reynold and Francis (2000), Chen et al (2005), Ming (2007) and Champers and Payne (2011).

The results related to the fourth hypothesis
The research fourth hypothesis investigates the relationship between discretionary accruals and auditor industry specialization. The results of this hypothesis indicate a significant negative relationship between discretionary accruals with auditor industry specialization. High quality auditing can reduce abnormal accruals of economic entities that are considered to motivate managers. Auditing with higher quality discovers questionable accounting practices more likely. Therefore, it can be said that there is a significant negative relationship between auditor industry specialization with discretionary accruals. The research results are consistent with the obtained results by Vellore (2003), Don and Mihio (2004), Chen et al (2005) and Santano Mitra et al (2010).
References