The Effect of Conservatism on the Reliability of Information and Timeliness of Disclosure among the Listed Companies in Tehran Stock Exchange

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Abstract
With regard to the purpose of the study to investigate the relationship between conservatism and quality of disclosure in listed companies in Tehran Stock Exchange for the period of 2009-2013 and correlation methodology, the study is quasi-experimental and post-events and in the field of PAT which is done with real information. In terms of the nature and objectives, it is an applied study. The statistical model used in this research is multivariate regression, and combined data technique is used to estimate the study models. One of the common effects, fixed effects and random effects will be used to estimate the appropriate models. Fisher test is adopted for implementation of combined data, and Hausman test is used to determine the type of panel data (common effects and fixed effects) and to analyze the research data and extracting the results, the 21 SPSS was put into use.

Keywords: conservatism, the quality of disclosure, conditional and unconditional conservatism, discretionary accruals

Introduction
The role of information in the field of economic decisions is vital; and without sufficient information, the investors wouldn’t appropriately identify the opportunities and risks of investments. To be effective on the decisions of the users of financial statements, the information must be placed at their disposal at the right time. Regarding the high sensitivity of financial information to the time, they may lose their value and usefulness in decision-makings over time. So, as the information provided is closer to the date of occurrence of the events, it will be timelier. In the financial reporting, this is true when the report publication date is close to the end of financial period. The purpose of financial reporting is to provide useful information to users. Useful information should be reliability and relevant. One of the components of the reliability of the information is the principle of conservatism.

The technical committee of Iran accounting standards referred to it as the precautionary principle. Basu (1997) states that, conservatism is demonstrable difference for recognition of revenues and costs, which leads to low representing of profits and assets. Since there are conflicts of interest between managers and investors, during their tenure, the managers probably forecast profits and low represent losses. If the quality of information disclosure is low, the information asymmetries between managers and investors would increase, which lead to create the possibility for opportunistic earnings management; On the other hand, due to the costs of representation and bearing these costs by managers, they have incentives to provide high quality financial reports. The companies with high disclosure quality are expected to provide verifiable information in relation to financial performance, financial weakness, and other adverse events. In this regard, one of the qualitative characteristics of information is conservatism which is divided into two conditional and unconditional types Bassu (1997). Thus, the disclosure quality reduces information asymmetries. Asymmetries between managers and investors may reduce the possibility

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of earnings management and investors have been led to increase their expected returns. And with increasing conservatism in accounting, which in turn leads to improving the quality of information disclosure, manipulation of accounting information by managers as well as information asymmetry will be reduced; Therefore, high quality disclosure requires conditional and unconditional conservatism. High quality disclosure companies are less into earnings management, and have higher conditional conservatism and lower unconditional conservatism. The study was presented in the first part as an introduction on the topic, followed by a second part as the statement of the problem; in the third part, the importance and necessity of research, and in the fourth part the theoretical basis of the research are represented; the fifth part involves the research hypothesis and in the sixth part, models and analysis of descriptive statistics and correlations between variables have been stated and seventh part outlines the results of hypothesis testing and finally the results will be expressed in the last part.

**Statement of problem**

Accounting conservatism can be defined as the tendency to use a higher degree of verifiability for identifying good news in comparison with bad news. Recent research conducted by Basu and Beaver and Ryan (2005) have divided the conservatism into two conditional and unconditional types. Basu (1997) states that, conservatism is different verifiability for recognition of revenues and costs, which leads to low representing of profits and assets. In 2005, he stated that this definition reflects conditional conservatism. The quality of information disclosure is one of the accounting principles which affect the financial reporting. Since the managers are responsible for preparing the financial statements, they can apply the disclosure policy to realize the main purpose of accounting and financial reporting which is to disclose and provide useful information for economic decision-making for financial reports users. On the other hand, the problem of information asymmetry leads to conservatism in accounting and financial reporting which considering the normative approach used in the development of theoretical predictions; this will improve the reliability and quality of financial information disclosure, and also reduce the information asymmetry. Conservatism is among the characteristics of financial reporting, which has long been intertwined with the theory and practice of accounting. In our country, in the theoretical concepts of reporting, conservatism has been recognized by the term precaution and has been introduced as one of the components of reliability which is a qualitative feature.

According to the conservatism, accountants tend to have higher levels of reliability to identify the benefits and good news. In contrast, they tend to the lower degree of reliability for losses and bad news identification (Basu 1997). In other words, in profits and interests, bad news are paid attention faster than good news, therefore it creates the problem of information asymmetry. In general, this asymmetry arises between informed users (managers) and non-informed users (investors, shareholders, capital market participants) as a result of the reluctance of managers to disclose losses and their willingness to disclose profits. Information asymmetry caused by the low quality of disclosure increases the risk of investors, thus they would seek to increase their expected returns. So with accounting conservatism which in turn will improve the quality of information disclosure, the extent of manipulation of accounting information by managers will be reduced as well as the information asymmetry; finally, according to several studies about conservatism, the main problem in most studies is the lack of a comprehensive definition of conservatism. The aim of this study was to investigate this question: Is there a significant relationship between the quality of information disclosure and accounting conservatism of listed companies in Tehran Stock Exchange or not? High quality Disclosure would reduce the information asymmetries, and asymmetries between managers and investors may reduce the possibility of earnings management; therefore, high
quality disclosure requires conditional and unconditional conservatism, and companies with higher quality of disclosure is lesser into earnings management and have higher conditional conservatism, as well as lower unconditional conservatism. So in order to help managers and business unit’s stakeholders, the following topics will be discussed in this study.

1) Do companies with higher disclosure quality report lower discretionary accruals?
2) Do companies with higher quality of disclosure, in comparison with those low quality disclosure ones, have higher conditional and lower unconditional conservatism

Significance of the study
Since there are conflicts of interest between managers and investors, during their tenure, the managers probably forecast profits and low represent losses. If the quality of information disclosure is low, the information asymmetries between managers and investors would increase, which lead to create the possibility for opportunistic earnings management. On the other hand, due to the costs of representation and bearing these costs by managers, they have incentives to provide high quality financial reports. The companies with high disclosure quality are expected to provide verifiable information in relation to financial performance, financial weakness, and other adverse events. In this regard, one of the qualitative characteristics of information is conservatism, which has long history in accounting (Basu 1997). Accounting conservatism can be defined as the tendency to use a higher degree of Verifiability for identifying good news in comparison with bad news. Recent research conducted by Basu and Beaver and Ryan (2005) have divided the conservatism into two conditional and unconditional types. Basu (1997) states that, conservatism is different verifiability for recognition of revenues and costs, which leads to low representing of profits and assets. In 2005, he stated that this definition reflects conditional conservatism and unconditional conservatism is the identification of losses, independent of the type of economic news (such as research and development expenditure recognized as an expense). The limited conditional and unconditional types of conservatism are qualitative characteristics of the information which are important and essential to study the relationship between conservatism and disclosure quality.

Theoretical foundation of the study
With identification and evaluation of the effect of conservatism on the information reliability and timeliness of disclosure of companies, this study will provide applied basis for capital market players, including actual and potential investors and etc. Obviously in doing any research, it is attempted that the results will be used for efficient and effective decision making by those who are interested in; therefore, this study will not be exempt from this. On the other hand, the research results will be significant for corporate managers to strive for more positive results. In this study, the main variables of the research are presented as:

Conservatism: Accounting conservatism can be defined as the tendency to use a higher degree of Verifiability for identifying good news in comparison with bad news Bassu (1997, p4).

Conditional conservatism: conservatism is a post-event which is also referred to as news-dependent conservatism, conditional conservatism, and time asymmetry of profit. This kind of conservatism is mostly effective on the profit and loss statement. According to this type of conservatism, the book value of the asset is reduced due to unpleasant news. While for increasing the value of assets, pleasant news with very high verifiability is required (Beaver and Ryan 2006).

Unconditional conservatism: This type of conservatism is a post-event which is news-independent and mostly has had an impact on the balance sheet and arises from implementation of those accounting standards that reduce the profit independent of the current economic news (Beaver and Ryan 2006).
Disclosure Quality: The process of Improvement in providing information is related to the business unit in the form of financial statements, annual reports, and analysis of the management, along with notes etc. So, on the basis of this information, shareholders and analysts make appropriate financial and investment decisions, (Johns, Arens and Lybart, 2009).

Accruals: The difference between net income before unexpected items and non-continuous, and operating cash flows and it is divided into two parts: discretionary and non-discretionary accruals.

The following will point out some external and internal investigations carried out in the context of this research.

Literature review

Dimitropoulos et al (2013) reviewed the effect of International Financial Reporting Standards on the quality of accounting information in companies listed in the Athens Stock Exchange. They showed that the adoption of this accounting standard resulted in an increase in the quality of accounting information in earlier recognition of losses, reducing the earnings management and increase the information content of accounting numbers.

Tan (2013) showed that when financial reports are used by lenders, or lenders grant loans to bankrupt companies and appoint individuals to corporate restructuring after bankruptcy, so accounting conservatism will increase. The results suggest that if the firm funding carried out through debt, then the demand for conservative financial reporting would increase.

Lin et al (2012) studied the quality of accounting information in German companies before and after the adoption of International Financial Reporting Standards. They found that after the adoption of these standards, the quality of accounting information has risen earlier recognition of losses, reducing the earnings management and relevance of information. Hamdan (2012) in Bahrain showed the large companies have more accounting conservatism than small ones. He found no relationship between accounting conservatism and earnings quality in Bahrain companies. Also, companies that have more debt are more conservative compared to other companies.

Ruch and Taylor (2011), by reviewing the conducted research in the field of accounting conservatism, faced with different findings about the usefulness of accounting conservatism in improving the quality of financial statements. Accounting conservatism would result in the earnings management through creating accounting reserves, such as reserving doubtful receivables. On the other hand, they concluded that conservatism can reduce information asymmetry and improve transparency in the disclosure of financial statements data. The results of their study show that accounting conservatism can be used as an efficient contractual mechanism to prevent conflicts of interest between managers and shareholders, shareholders and creditors.

Kravet (2012) showed that accounting conservatism reduces the managers' incentive for high-risk investments. He found that managers who implement higher accounting conservatism, carrying out less risky investments. Wang (2013), focuses the role of earnings conservatism to explore the effect of accounting conservatism on information asymmetry during the period 2002-2011 in Taiwan. The results show that when a corporate's conservatism is insufficient, the relationship between conservatism and information asymmetry is negative and significant. Conversely, when accounting earnings are very conservative, there is a positive and significant relationship between conservatism and information asymmetry.

Kravet (2014) in a study tried to examine the issue of whether conservative reporting (timely loss detection) reduces management incentives for potentially risky investments or not? The researcher conducted their study on companies active in the United States for the period of 1984-2006. The results showed that the accounting conservatism is negatively and significantly correlated
with the fear of education risk. Limitations of conservatism affect managerial incentives for venture capital even if the investments would be profitable.

Doelman (2014) investigated estimates of management on the use of conservative accounting and showed that overconfident managers overestimate future returns of the company's projects and concluded that overconfidence will lead to financial reporting and lesser conditional conservatism.

Muhammad Yunus (2014) investigated the effects of internal governance mechanisms on accounting conservatism. The results of the study shows that the Board of Directors who hold at least four meetings of the audit committee and have a higher percentage of independent directors and finance professionals, and would act more quickly to identify the bad news and good news-related revenues.

Lara (2015) in a study examined the relationship between accounting conservatism and efficiency of the company's investment. The results of the study suggest that more conservative companies invest more and also have more debt, and it will be also influenced by firm characteristics and problems of information asymmetry.

Etemadi and Farajzadeh (2012) examine the impact of the earnings management and capital structure on profit conservatism. The researchers argue that the earnings management, regardless of whether it is increasing or decreasing, affects the profit conservatism and increase conservatism. Companies that manage their declining profit would report more conservative profit, which shows hyper-conservatism. Companies that through positive accruals, carry out increasing earnings management, exert lesser conservatism in their reporting. Capital structure affects the size of profit conservatism. Companies that, in financing, have used more of the equity have imposed more conservatism in measuring profit.

Adham (2007) in a study on the role of accounting conservatism on earnings quality and stock returns achieved the following results:

1) There is a positive relationship between accounting conservatism and the quality of earnings; the more conservative procedures adopted by companies, the reported earnings will be of higher quality in terms of proximity to cash, and vice versa.

2) There is no significant relationship between conservatism and size of the companies.

3) There is a significant inverse relationship between tax savings and conservatism in accounting.

Zadeh and Azad (2008) examined the relationship between information asymmetry between investors and the conservatism in financial reports. Their assumptions were as follows:

1) The more information asymmetry between investors, the more conservatism in financial statements

2) Changes in information asymmetry between investors leads to changes in the level of conservatism of financial statements

They used Basu (1997) criteria to assess the degree of conservatism, which was previously described. Rezazadeh and Azad on the basis of this study concluded that if there is information asymmetry between investors, companies would report profit and loss with more conservatism. The asymmetric recognition of revenues and expenses in the financial statements is changed in accordance with the level of information asymmetry. They also found that by varying the degree of information asymmetry between investors, the conservatism in financial reporting increases.

Noravesh and Hoseini (2009) have examined the relationship between the quality of corporate disclosures (including reliability and timeliness) and earnings management using historical data of 51 companies during 2002-2007. Research findings show that a positive and significant relationship exists between company's disclosure quality and earnings management. The
findings also showed a significant negative correlation between the timeliness of disclosure of corporate and earnings management; while no significant correlation was observed between the reliability of corporate disclosures and earnings management.

Fakhari and Messenger (2013) studied the effect of conservatism and accruals quality on the investment efficiency. Results showed that conservatism increase the efficiency of companies’ investment.

Ansari et al (2013) investigated the effect of conservatism on earnings management based on accruals, the actual management of profit, and the general level of earnings management in firms listed in the Tehran Stock Exchange. The results show a negative relationship between conservatism and accrual-based earnings management, and also a positive relationship between conservatism and actual earnings management. The study also examined the effect of conservatism on the general level of earnings management. The results indicate that there is a negative relationship between conservatism and the general level of earnings management.

Ramsheh and et al (2014) examined the relationship between accounting conservatism and over confidence of management and also the foreign monitoring effect on this relationship. Conditional conservatism was based on Khan and Watts (2009) regression pattern and two measures of unconditional conservatism were based on accruals and the difference between profit skewness and cash flows. The results show that there is a negative and significant relationship between conditional and unconditional conservatism and management overconfidence. In addition, the findings showed that the external monitoring reduces the negative effect of overconfidence on conditional conservatism, but it will not have the same effect on unconditional conservatism.

Banimahd and et al (2014) studied on accounting conservatism and management bonuses. The results showed that there is a negative relationship between accounting conservatism and management bonuses. The evidence suggests that the management bonuses have a positive relationship with company’s size and profitability. But the results did not confirm a significant relationship between debt ratio and changing with management bonuses.

Abbasi et al (2014) examined the effect of accounting conservatism on the risk of falling stock prices in terms of information asymmetry in the Tehran Stock Exchange. Khan and Watts (2009) Index was used to measure the conservatism; and multivariate regression model have been used to measure the risk of falling stock prices; Logistic regression models were used to test the hypotheses. The findings show that conservatism has negative and significant effect on the likelihood of stock price crash. It is noteworthy that this result is also true in terms of information asymmetry. The test results show that the conservatism is lesser when there is possibility for stock prices to fall, than when there is no likelihood of falling stock prices.

**Research Hypothesis**

According to theoretical basis and conducted studies, the hypotheses of this research are as follows:

The first main hypothesis: higher disclosure quality companies report lower discretionary accruals.

The second main hypothesis: higher disclosure quality companies adopt higher conditional conservatism in comparison with lower disclosure quality companies.

**Methodology**

This study is a correlation type of research and regarding the purpose, it’s an applied research. Also the research design is quasi-experimental due to the use of historical data. The statistical population includes all companies listed in Tehran Stock Exchange during 2008 to 2013. The sample consisted of companies that were accepted at Tehran Stock Exchange by the end of
2007, their financial period ends in March, their financial year has not changed during the period of study, and data needed to carry out this research is available. Based on the limitations, 600 companies (companies in all years) were selected as the study sample. Information and data needed for the study were collected through the Tehran Stock Exchange official sites, including Research and Development and Islamic Studies (Rdis), Bourse information exchange company and Rahavard Novin software, and preliminary required calculations were carried out on Excel spreadsheet; then The final analysis was performed using 20Spss software. Multiple regression models and the statistical method of panel data were used to test the hypothesis of the research.

In the operational definition, each of the variables are defined in such a way that they can be measured. In this study, the dependent variable is the conservatism and the independent variable is the disclosure quality. The main basis of the study hypothesis test is adopted from Rodriguez (2010) model; and to study the relationship between conservatism and disclosure quality, the relevant variable are included in the mentioned model.

**Model of Research Hypotheses**

Model (1) is used to investigate the relationship between disclosure quality and the amount of discretionary accruals.

\[
DAC_{i,t} = \alpha_0 + \alpha_1 AQ_{i,t} + \alpha_2 AQ_{i,t} * OCF_{i,t} + \alpha_3 AQ_{i,t} * LNA_{i,t} + \alpha_4 AQ_{i,t} * ROA_{i,t} + \epsilon_{i,t}
\]

\(DAC_{i,t}\): Discretionary accruals

\(AQ_{i,t}\): A dummy variable that indicates the quality of reported accounting information. If the quality of financial reporting is above average, it would be regarded equal to one and otherwise it'll be considered zero.

\(OCF_{i,t}\): operational Cash flow.

\(LNA_{i,t}\): The natural logarithm of total assets.

\(ROA_{i,t}\): Return on total assets (net income divided by the total assets.

The model used to investigate the relationship between disclosure quality and conservatism is based on Rodriguez (2010) and Ayatridz (2011) model.

Model 2:

\[
DAC_{i,t} = \alpha_0 + \alpha_1 CFD_{i,t} + \alpha_2 OCF_{i,t} + \alpha_3 CFD_{i,t} * OCF_{i,t} + \alpha_4 AQ_{i,t} + \alpha_5 AQ_{i,t} * CFD_{i,t}
\]

\(CFA_{i,t}\): Operational accruals (absolute value).

\(CFD_{i,t}\): A dummy variable that represents cash flow sign. If the cash flow sign is negative it would be regarded equal to one and otherwise it'll be considered zero.

\(OCF_{i,t}\): operational Cash flow which is scaled by total assets. The relationship between the quality of financial reporting and conditional conservatism is represented by \(7\alpha\). The coefficient is positive in the sense that higher disclosure quality companies impose more conservatism compared to the companies with lower disclosure quality.

To obtain the relationship between the quality of financial reporting and the unconditional conservatism, UC variable is used. UC variable is measured using model (3) (according to research conducted by Rodriguez, 2010).

Model 3:

\[
UC(AQ = 1) = \alpha_4 + \alpha_5 * NOCF(AQ = 1)
\]

\(NOCF(AQ=1)\), the proportion of companies that have disclosed high quality accounting information and have reported negative cash flow.
Rodriguez (2010) showed that unconditional conservatism is independent of news, so only conditional conservatism provides new information. UC(AQ=1) is used to measure the accruals that are independent of good or bad news, (Vander, 2007). This variable is inversely related to the unconditional conservatism.

Calculation of discretionary accruals
it is equal to the difference between total accruals and non-discretionary accruals. In order to estimate the non-discretionary accruals, cross-sectional Jones model is used. This study uses regression model as the remaining discretionary accruals DAC i, t. like researches conducted by Barto et al (2001), Kosari et al (2004), and Gomez et al (2006).

\[ AC_{i,t} = \alpha_0 \left(\frac{1}{A_{i,t-1}}\right) + \alpha_1 \Delta REV_{i,t} + \alpha_2 PPE_{i,t} + \varepsilon_{i,t} \]

AC i,t: Total accruals in year t, which are scale with total assets of 1-t year. The Cash Flow method is used to calculate the total accruals. In the cash flow method, total accruals (AC) are calculated as follows:

Model 5:
\[ AC_{i,t} = EARN_{i,t} - OCF_{i,t} \]

EARN i,t: Earnings before unexpected items and non-continuous operation.

OCF i,t: Operating cash flows that can be obtained according to the following equation.

\[ OCF_{i,t} = \text{Operating cash flow according to cash flow statement + dividend paid + return on investment and profits to finance Paid + tax-related cash flow.} \]

\[ A_{i,t-1} \]: Total assets in 1-t year.

REV i,tΔ:: Change in revenue of year t, which is scaled by total assets of year t-1

PPE i,t: Property and equipment of the year t, which is scaled by total assets of year t-1.

\[ e_{i,t} \]: Error component of the model.

Results of testing hypotheses
At this point the estimation results of models (1) and (2) is presented using cross-sectional data. In cross-sectional method, the results of the study during 2008-2013 are presented.

Table 1: The results of model (1) in different years
\[ DAC_{i,t} = \alpha_0 + \alpha_1 AQ_{i,t} + \alpha_2 AQ_{i,t} \ast OCF_{i,t} + \alpha_3 AQ_{i,t} \ast LNA_{i,t} + \alpha_4 AQ_{i,t} \ast ROA_{i,t} + \varepsilon_{i,t} \]

<table>
<thead>
<tr>
<th>Variable/ year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.1</td>
<td>0.06</td>
<td>-0.11</td>
<td>-0.12*</td>
<td>0.02</td>
<td>-0.04</td>
</tr>
<tr>
<td>(0.24)</td>
<td>(0.53)</td>
<td>(0.19)</td>
<td>(0.06)</td>
<td>(0.53)</td>
<td>(0.53)</td>
<td></td>
</tr>
<tr>
<td>(AQ_{it})</td>
<td>0.11***</td>
<td>0.7**</td>
<td>0.06*</td>
<td>0.09***</td>
<td>0.06</td>
<td>0.11***</td>
</tr>
<tr>
<td>(0.00)</td>
<td>(0.02)</td>
<td>(0.07)</td>
<td>(0.00)</td>
<td>(0.01)</td>
<td>(0.00)</td>
<td></td>
</tr>
<tr>
<td>(AQ \ast OCF)</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>-0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>(0.16)</td>
<td>(0.39)</td>
<td>(0.26)</td>
<td>(0.31)</td>
<td>(0.23)</td>
<td>(0.94)</td>
<td></td>
</tr>
<tr>
<td>(AQ \ast LNA)</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>(0.98)</td>
<td>(0.61)</td>
<td>(0.11)</td>
<td>(0.80)</td>
<td>(0.26)</td>
<td>(0.64)</td>
<td></td>
</tr>
<tr>
<td>(AQ \ast ROA)</td>
<td>0.36***</td>
<td>0.46***</td>
<td>0.29***</td>
<td>0.19***</td>
<td>0.46***</td>
<td>0.20***</td>
</tr>
<tr>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
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<td></td>
</tr>
<tr>
<td>Fisher statistics (significance)</td>
<td>17.70***</td>
<td>2.32***</td>
<td>0.97***</td>
<td>2.69***</td>
<td>4.39***</td>
<td>14.63***</td>
</tr>
<tr>
<td>(0.00)</td>
<td>2</td>
<td>9</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Modified determination coefficient</td>
<td>26.74%</td>
<td>32.64%</td>
<td>15.89%</td>
<td>26.81%</td>
<td>44.33%</td>
<td>22.39%</td>
</tr>
</tbody>
</table>

*, **, *** are significant in 10%, 15%, and 1%, respectively
The results of model 1

The results of model (1) by cross-sectional method for 2008 to 2013 are presented in table 1. Disclosure quality coefficient is significant in all years studied. This confirms the first hypothesis of the research in all years.

Testing results of model (2)

The results of model (2) estimation by cross-sectional method for 2006 to 2013 are presented in table 2.

The results of model (3) estimation

The results of model (3) by cross-sectional method for 2008 to 2013 are presented in table 2.

Table 2: Results of model (2.3) estimation in different years

\[ DAC_{i,t} = \alpha_0 + \alpha_1 CFD_{i,t} + \alpha_2 OCF_{i,t} + \alpha_3 CFD_{i,t} \times OCF_{i,t} + \alpha_4 AQ_{i,t} + \alpha_5 AOCF_{i,t} \times CFD_{i,t} + \alpha_6 AQ_{i,t} \times OCF_{i,t} \times CFD_{i,t} + \epsilon_{i,t} \]

<table>
<thead>
<tr>
<th>Variable / year</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tbody>
<tr>
<td>Intercept</td>
<td>0.07</td>
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<td>-0.12</td>
<td>-0.14 **</td>
<td>-0.09</td>
<td>-0.13</td>
</tr>
<tr>
<td></td>
<td>(0.38)</td>
<td>(0.32)</td>
<td>(0.12)</td>
<td>(0.04)</td>
<td>(0.19)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>CFD</td>
<td>12:17 ***</td>
<td>12:17 ***</td>
<td>12:15 ***</td>
<td>12:05 ***</td>
<td>12:11 ***</td>
<td>0.12 ***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.02)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>OCF</td>
<td>-0.02 ***</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.42)</td>
<td>(0.77)</td>
<td>(0.51)</td>
<td>(0.31)</td>
<td>(0.93)</td>
</tr>
<tr>
<td>CFD * OCF</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>(0.39)</td>
<td>(0.60)</td>
<td>(0.22)</td>
<td>(0.63)</td>
<td>(0.46)</td>
<td>(0.23)</td>
</tr>
<tr>
<td>AQ</td>
<td>12:40 ***</td>
<td>12:44 ***</td>
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<td>12:55 ***</td>
<td>12:37 ***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>AQ * CFD</td>
<td>***0.11</td>
<td>***0.07</td>
<td>***0.06</td>
<td>***0.09</td>
<td>***0.06</td>
<td>***0.11</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.02)</td>
<td>(0.07)</td>
<td>(0.00)</td>
<td>(0.01)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>AQ * OCF</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>-0.01</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td>(0.39)</td>
<td>(0.26)</td>
<td>(0.31)</td>
<td>(0.23)</td>
<td>(0.94)</td>
</tr>
<tr>
<td>AQ * OCF * CFD</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>(0.98)</td>
<td>(0.61)</td>
<td>(0.11)</td>
<td>(0.80)</td>
<td>(0.26)</td>
<td>(0.64)</td>
</tr>
<tr>
<td>Fisher statistics (significance)</td>
<td>28.01 ***</td>
<td>33.37 ***</td>
<td>22:40 ***</td>
<td>18:59 ***</td>
<td>55.32 ***</td>
<td>24.55 ***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Adjusted coefficient of determination</td>
<td>37.12%</td>
<td>42.66%</td>
<td>31.06%</td>
<td>24.57%</td>
<td>49.58%</td>
<td>33.62%</td>
</tr>
</tbody>
</table>

The results presented show that the intercept only in 2011 (-14.0) at the level of 5% and 2014 (-13.0) at the level of 1% is significant. The coefficient of the dummy variable (CFD) is significant in all years studied. This is a confirmation of the second research hypothesis in every tested year. The variable of cash flow from operations is significant only in 2006 (-0.02). Cash flow from operations is not a significant variable in any of the years, but disclosure quality variable is significant in all years studied. The significance of Fisher statistic in all years indicates that the research model is significant in studied years. The adjusted coefficient of determination shows that in 2008 to 2013, independent variables explain about 37, 43, 31, 25, 50, and 34 percent of discretionary accruals changes.
Testing results of research models by combined data method

For the first and second research hypothesis, models (1) and (2) were respectively estimated using combined data method. Basically, the panel data refers to the cross-sectional units over time. The models based on these data are called panel data regression models. In general, it can be said that the panel data enrich the empirical analysis. This is not possible when using time series or cross-sectional data. In fact, using cross-sectional data for several years has better and more reliable results and increases the explanatory power of the model.

Testing the first hypothesis

The first model is used to examine the relationship between disclosure quality and the degree of discretionary accruals.

The results of the model are shown in table 3. According to the F statistic (equal to 17.05), we can conclude the model is significant at the 1% level and the Durbin-Watson statistic (99/1) assures the lack of correlation. The coefficient of determination is equal to 12%, which shows that about 12 percent of the variation in the dependent variable is explained by the independent variables. Given the t-statistics and the significance level, it is concluded that all variables other than AQ * LNA are significant at 1% level.

Disclosure quality variable coefficient is equal to -0.105 which shows significance at the level of error of less than 1%. The minus sign on the disclosure quality coefficient shows that there is a negative relationship between disclosure quality and the amount of discretionary accruals; which means by increasing the quality of disclosure, the amount of discretionary accruals would decrease.

Table 3: The results of the first model

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Coefficient</th>
<th>T statistics</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant value</td>
<td>.0863</td>
<td>6.83</td>
<td>0.000</td>
</tr>
<tr>
<td>AQ</td>
<td>0.0065</td>
<td>6.85</td>
<td>0.000</td>
</tr>
<tr>
<td>AQ * OCF</td>
<td>0.00561</td>
<td>-5.12</td>
<td>0.000</td>
</tr>
<tr>
<td>AQ * LNA</td>
<td>-0.00105</td>
<td>07.70</td>
<td>0.000</td>
</tr>
<tr>
<td>AQ * ROA</td>
<td>+0.00660</td>
<td>1.60</td>
<td>0.113</td>
</tr>
</tbody>
</table>

Model power

Model validity

R = -0.12

Durbin-Watson statistics = -1.99

Modified R =6.3

F statistics of table = 17.05

Model significance = 0.000

Testing the second hypothesis

The relationship between the quality of financial reporting and conditional conservatism is shown by AQ * OCF * CFD coefficient.

Being positive of these coefficients means that companies with high disclosure quality have more conservatism compared to low disclosure quality companies.

The results of cutting the model in table 4 show that according to the statistic F (equal to 8.054), it can be concluded that the model is significant at the 1% level and Durbin-Watson statistic (1.93569) that assures the correlation. The coefficient of determination is approximately 50 percent, that shows about 50 percent of the variation in the dependent variable is explained by the independent variables. According to t test and the significance level, it can be conclude that OCF, CDF * OCF and AQ * OCF * CFD variables are significant at 1% level and the rest of them are not.
Table 4: The results of the model (2)

<table>
<thead>
<tr>
<th>Model 2</th>
<th>Coefficient</th>
<th>T statistic</th>
<th>S significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed amount</td>
<td>0.071</td>
<td>7.69</td>
<td>0.009</td>
</tr>
<tr>
<td>CFD</td>
<td>-0.022</td>
<td>0.63</td>
<td>0.532</td>
</tr>
<tr>
<td>OCF</td>
<td>0.046</td>
<td>4.45</td>
<td>0.005</td>
</tr>
<tr>
<td>CFD * OCF</td>
<td>-0.224</td>
<td>-5.95</td>
<td>0.0024</td>
</tr>
<tr>
<td>AQ</td>
<td>0.056</td>
<td>1.64</td>
<td>0.104</td>
</tr>
<tr>
<td>AQ * CFD</td>
<td>-0.033</td>
<td>-0.7</td>
<td>0.483</td>
</tr>
<tr>
<td>AQ * OCF</td>
<td>-0.1219</td>
<td>-0.93</td>
<td>0.354</td>
</tr>
<tr>
<td>AQ * OCF * CFD</td>
<td>0.076</td>
<td>7.30</td>
<td>0.004</td>
</tr>
</tbody>
</table>

Model power

| R = 50.1       | Durbin-Watson statistic (1.93569) |
| Modified R = 14| F statistic 8.0544                 |

Model significance = 0.000

Hypothesis testing are summarized in Table (5)

Table 5: summary of the research hypothesis results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Higher disclosure quality companies report lower discretionary accruals.</td>
<td>confirmed</td>
</tr>
<tr>
<td>2</td>
<td>higher disclosure quality companies adopt higher conditional conservatism in comparison with lower disclosure quality companies</td>
<td>confirmed</td>
</tr>
</tbody>
</table>

Testing the first hypothesis: The first model is used to examine the relationship between disclosure quality and the degree of discretionary accruals. The results of the model are shown in Table 2. According to the F statistic (equal to 17.05), we can conclude the model is significant at the 1% level and the Durbin-Watson statistic (1.99) assures the lack of correlation. The coefficient of determination is equal to 12%, which shows that about 12 percent of the variation in the dependent variable is explained by the independent variables. Given the t-statistics and the significance level, it is concluded that all variables other than AQ * LNA are significant at 1% level.

Disclosure quality variable coefficient is equal to -0.105 which shows significance at the level of error of less than 1%. The minus sign on the disclosure quality coefficient, shows that there is a negative relationship between disclosure quality and the amount of discretionary accruals; which means by increasing the quality of disclosure, the amount of discretionary accruals would decrease.

Testing the Second Hypothesis: To examine the relationship between disclosure quality and conservatism conditional regression model (2) was used. The results of the model are shown in Table 3. The relationship between the quality of financial reporting and conditional conservatism is shown by AQ * OCF * CFD coefficient. Being positive of these coefficients means that companies with high disclosure quality have more conservatism compared to low disclosure quality companies.

The results of cutting the model in table (4) show that according to the statistic F (equal to 8.054), it can be concluded that the model is significant at the 1% level and Durbin-Watson statistic (1.93569) that assures the correlation. The coefficient of determination is approximately 50 percent, that shows about 50 percent of the variation in the dependent variable is explained by the independent variables. According to t test and the significance level, it can be conclude that OCF, CDF * OCF and AQ * OCF * CFD variables are significant at 1% level and the rest of them are not.
Discussion and Conclusion

In this study, at first descriptive statistics of research variables were represented. Then the inferential statistics were dealt with and the research models were presented in the form of inferential statistics of hypotheses. To test the models, firstly the Chow test was used to determine if the panel method should be used or mixed and then the Hausman was used test for random effects or fixed-effects of panel method. Finally, the model was presented and the results of the classical regression assumptions for research models were explained.

Disclosure quality and presenting reliable and relevant financial reports are among the most important issues in accounting and finance. By providing quality financial reports, companies can achieve better value and attract the attention of analysts and investors. Quality financial reporting helps to assess the performance of managers and right investment decisions.

The quality of accounting information can increase by applying conservatism and reducing earnings management. In this study, it was assumed that compliance with disclosure requirements, resulting in decreased earnings management and the companies with high disclosure quality have higher conditional conservatism. To measure the quality of disclosure, the overall rating given to the company by the Stock Exchange and to measure earnings management, discretionary accruals were used. The results of this study showed that by increasing the quality of disclosure, the earnings management (discretionary accruals) will decrease. In other words, companies that comply with the disclosure requirements have lesser effort to manage earnings. This finding is similar to research findings such as Truman heart and Titman (1988), Richardson (1998), Shaw (2003), Tondlo and Vanstraln (2005), Noravesh and Hoseini (2009) and Ayatridz (2011). By examination of the second research hypothesis, it was indicated that by increasing the quality of disclosure the conditional and unconditional conservatism would respectively increase and decrease. In other words, the companies that comply with disclosure requirements are trying to reduce information asymmetries and also represent conservatism information. This result is similar to previous findings such as Xinjiang (2007), Guy and Vercia (2007), Qi and Wang (2010), Ayatridz (2011) and Rodriguez (2010). The results showed that there is an inverse relationship between conditional and unconditional conservatism. The companies with high-quality of reporting are lesser into the unconditional conservatism and this result is similar to previous findings, such as Xinjiang R. (2007), Wonder (2007), Rodriguez (2010), and Ayatridz (2011).

Low earnings management and conditional conservatism are features of high quality accounting information. With regard to the relationship between these characteristics and ratings of disclosure quality, it is necessary for investors and analysts to consider the rank of disclosure quality (level of earnings management and conditional conservatism) and make their investment decisions on this basis; Because companies with higher disclosure quality, have lesser earnings management and higher conditional conservatism. As a result, they have lower information risk and information asymmetries.

References


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