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Influence of Auditor Characteristics on Earnings Quality of Companies Listed on Tehran Stock Exchange Using Discretionary Accruals Method

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Abstract: Accounting profession researchers and practitioners consider earnings as one of the most important criteria for evaluating the performance and determining the value of the company, and they are forced to evaluate the reported earnings by economic units. To assess the earning a concept called quality of earnings is used. This study seeks to investigate the impact of certain factors, including the audit characteristics (size of audit firm, switch of auditors and auditor opinion) on the quality of earnings through the variable of discretionary accruals. In addition, other factors such as control variables of operating leverage, profitability, firm size, and the operational risk were examined. Thus the sample data consisted of 130 participants were collected for a five year period (2007-2011) and using model explanation, three proposed hypotheses in this study were tested. Regression analysis was used to test the hypotheses. The results indicate a significant negative correlation between the size of audit institution and discretionary accruals. This means that there is a negative and significant relationship between the variable of the audit institution size and earnings quality. Also, there is a non- significant positive relationship between the variables of the type of auditor opinion and discretionary accruals. This indicates a non- significant positive relationship between the variables of the type of auditor opinion and earnings quality. Finally, there is a negative and non- significant correlation between the variable of the switch of audit and the index of discretionary accruals. This represents a negative and non- significant relationship between the switch of auditor and earnings quality variables.

Keywords: Earnings Quality, Discretionary Accruals, Jones Modified Model, Auditor Characteristics

INTRODUCTION

Earning is one of the major and important items of the financial statements that have drawn the attention of investors, creditors, managers, employees, analysts, government and other users of financial statements. They use earning as a basis for investment decisions, lending, interest payments policies, corporate assessments, tax calculation and other decisions relating to the company [1]. There are appropriate grounds to " manipulate earnings" that has caused an economic unit genuine earnings be different from reported earnings in the financial statements. The theory of earnings quality was introduced first by financial analysts and stock brokers, because they felt that reported earnings do not show

the earning power of a company, so that it is envisaged. They found that future earnings prediction based on reported results is difficult. Analysts also found that the analysis of the financial statements is a difficult task due to numerous weak points in measuring accounting information. The importance of the present research is due to the importance of accounting earnings figures at different levels for decision making. Many studies have confirmed the effect of earning figures report on stock price and capital market behavior, that all justify the importance of this study. On the other hand the shareholders (owners) of the companies always concern themselves with the performance of corporate executives that might not move in line with the interests of shareholders and might spend the company resources to increase their profits. The present study is seeking to find the relationship between auditor attributes and characteristics and the improvement of reported earnings quality by companies listed on Tehran Stock Exchange.

RESEARCH LITERATURE

Sloan proved that the companies with reported earnings higher than operating cash flow (high volume of accruals), will experience a decline in operating earnings in the coming years. So accruals volume is a good indicator for the quality of earnings[2].

Dechow and Dechev investigated the role of accruals in order to better measure the performance of companies. They concluded that the characteristics of each company such as the absolute of accruals amount, the standard deviation of sales, cash flows of accruals and earnings and firm size can be used as a tool to assess the quality of earnings[3, 4].

Abdelghani pointed out the different ways to measure earnings quality and using three methods showed that different ways to measure earnings quality lead to different assessments, and an industry or a company cannot be considered as having high or low earnings quality, just based on one method. That's why he suggested that the beneficiaries before making any investment decisions must choose more than one method for assessing the quality of earnings[5].

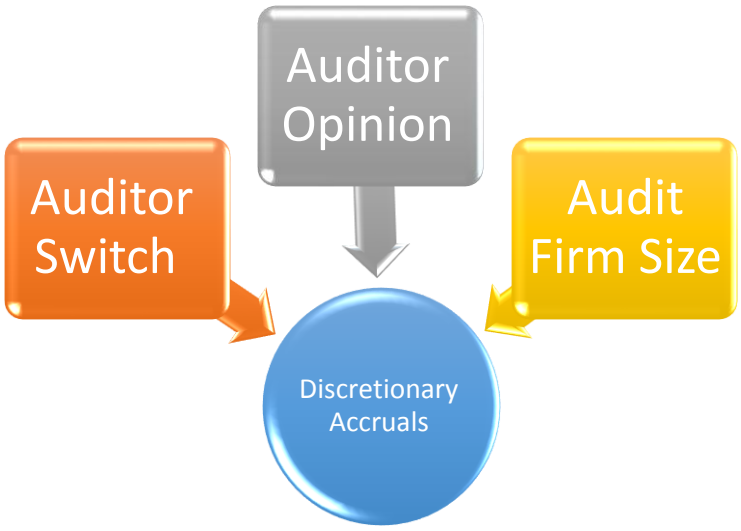
Khajavi and Nazemi reviewed the relationship between earnings quality and stock returns with emphasis on the role of accruals. According to their research results the average stock returns of the companies are not influenced by the rate of accrual and its related components[6].

Noravesh et al. studied the relation between earnings quality and the capital cost in Iran's stock companies. The results showed that in the tested period (1999- 2003) excluding the year 2000, there is an inverse relationship between earnings quality and the cost of capital[7].

Noravesh et al examined the quality of earnings management in Listed Companies on Tehran Stock Exchange for the years 1996 to 2003 using the parameters of firm size, debt-equity ratio and the effective rate of taxation. Jones method was used to demonstrate the earnings management. The research

results evidence that managers of large companies use accruals to lower taxes of their companies and the larger the companies, the more the managers tend to manage their earnings[8].

Research Conceptual Model



The main research question is: Do auditors attributes and characteristics are significantly related to earnings quality of companies?

Research hypotheses

The main hypothesis: There is a significant relationship between earnings quality and auditor characteristics.

Sub-hypothesis 1: There is a significant relationship between size of audit firm and discretionary accruals index.

Sub-hypothesis 2: There is a significant relationship between the type of audit opinion and the index of discretionary accruals.

Sub-hypothesis 3: There is a significant relationship between auditors switch and the index of discretionary accruals.

MATERIALS AND METHODS

The present study in terms of the classification of the research based on the goal is application type and in terms of the classification based on the method is descriptive type. Among the types of descriptive researches, it is the correlational one, because in which the relationship between the independent variables of the size of the audit firm, switch of auditors and the audit opinion, and the index of discretionary accruals of companies and earnings stability is studied.

Independent Variables Include:

Type the independent auditor's opinion: If in the study period wholly qualified opinion was issued the number 1 is given and otherwise the number 0 will be given to companies and it is extractable from their audit report.

The size of audit firms: the size of the average earnings of audit institutions that are disclosed by CPAs (certified public accountants) is our basis.

Switch of auditors: through the auditors reports investigation that were issued to companies, the audit institutions names could be extracted. If in the study period it has been changed the number 1 is given and otherwise the number 0 will be given to companies.

The Dependent Variable Includes:

Discretionary accruals index is based on Jones modified model. The modified Jones model and how to measure it is described separately for each company in the following:

ACC_{it} = OI - CFO

In the above equation, ACC_{it} is the sum of accruals, CFO is cash obtained from operations and OI is the operating earnings. In the next step, the following model is performed on accruals for the separation of discretionary accruals and non- discretionary accruals.

$$E_T(ACC_{IT}) = \frac{\sum_{k=1}^{5} Acc_{it-k}}{\sum_{k=1}^{5} Sales_{it-k}} * Sales_{it}$$

In this model, E_T (ACC_{it}): is the prediction of accruals of firm i in period t.

Sales: is the sales of the company and k is the five year period before the current year.

To calculate discretionary accrual that is the index of earnings quality, the predicted accruals, whose manner of calculation is mentioned in the previous section, should be deducted from the total accruals of the current year.

Control variables in the study include:

Financial leverage: is equal to the ratio of liabilities to total assets of the companies at research period years.

Profitability: is equal to the ratio of net income to total assets of the companies at research period years.

Firm size: is equal to the logarithm of sales to the sum of total assets of the companies at research period years.

Operational Risk: is equal to the standard deviation of the companies operating earnings at research period years.

In this study, information was collected from both library and field methods and using the Internet and information networks and referring to books, journals and dissertations in order to collect research literature and background as well as achieving the overall structure of the research. In order to test the research hypotheses extracted data from listed companies on Tehran Stock Exchange through different software and official website of the Stock Exchange of Tehran is used. The observation of the companies' financial statements and other reports, including published audit reports of the companies is taken place at the official website of CPAs. The population of the study includes listed companies on Tehran Stock Exchange whose financial statements information and audit reports

are available during the years 2006 to 2011. Statistical sample is selected using systematic removal method, and should not be part of the investment companies and banks, and insurance. The sample must be accepted in the panel of Tehran Stock Exchange during the study course and the end of their fiscal year must be March.

RESEARCH MODEL:

DISCRETIONARY ACCRUAL$_{i,t}$ = α_0 + β_1 audit size$_{i,t}$ + β_2 audit opinion$_{i,t}$ + β_3 audit switch$_{i,t}$ + β_4 control variables$_{i,t}$ + έ

DISCRETIONARY ACCRUAL = Discretionary accruals
audit size = Audit firm size
audit opinion = Type of auditor opinion
audit switch = Auditor Switch
control variables = Control variables

RESULTS

Results of research hypotheses investigation :

Table 1. statistics

		Discretionary Accruals Index	Audit Firm Size	Auditor Opinion	Auditor Opinion
N	Valid	120	120	120	120
	Missing	0	0	0	0
Mean		109962.8715	3.3089	0.4750	0.3000
Median		31573.9626	3.9977	0	0
Std. Deviation		226470.61309	1.79862	.50147	0.46018
Variance		51288938591.726	3.235	0.251	0.212
Skewness		3.829	-0.914	0.101	0.884
Std. Error of Skewness		0.221	0.221	0.221	0.221

The result of the descriptive statistics table of research variables shows that the mean and standard deviation of dependent variables, i.e. discretionary accruals of the companies are respectively 109, 962 and 226,470. Independent variables examination indicates that the mean and standard deviation of the auditor opinion and the auditor switch are respectively 30.0 and 475.0. The mean of audit firm size variable is obtained 308.3 as well. In terms of adaptation to the skewness coefficients normal curve it shows that the independent variables compared to the dependent variable are more accommodating. The elongation coefficient of research variables suggests that the variables of audit opinion and auditor switch have negative elongation. This indicates that they are lower than the normal curve. But the elongation coefficient of other variables is positive and they are higher than the normal curve.

Table 2. Model Summary for Hypothesis 1

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson

1	0.333a	0.111	0.103	0.56454	1.746
a. Predictors: (Constant), VAR00002					
b. Dependent Variable: VAR00001					

Regression significance test (regression model reliability) for Hypothesis 1

Statistical assumptions are formulated as follows:

There is no significant relationship between the size of the audit firm and indicator of discretionary accruals (regression model is not linear) H_0:: r = 0

There is a significant relationship between the size of the audit firm and indicator of discretionary accruals (regression model is linear) H_1: r ≠ 1

Table 3. ANOVA TEST for Hypothesis 1

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.683	1	4.683	14.693	0.000a
	Residual	37.608	118	0.319		
	Total	42.290	119			
a. Predictors: (Constant), VAR00002						
b. Dependent Variable: VAR00001						

ANOVA results show that the obtained F value was significant at the 5% error level. So with 95% confidence H0 is rejected and H1 is confirmed. This means that the fitted regression model was reliable and the assumption of regression model linearity is confirmed. Independent variable of audit firm size has high explanatory power and can explain the amount of the dependent variable variance change very well. The determination coefficient (R2) of processed model in the present model indicates that 1.11% of discretionary accruals index changes in the sample used in this study (hypothesis) are explained by the size of the audit firm.

Significance test of the coefficients for Hypothesis 1

Audit firm size has no effect on discretionary accruals index H_0 :: β = 0

Audit firm size has an effect on discretionary accruals index H_1: β ≠ 0

Table 4. Coefficients TEST for Hypothesis 1

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.950	0.108		45.726	0		
	VAR00002	-0.110	0.029	-0.333	-3.833	0	1.000	1.000
a. Dependent Variable: VAR00001								

Table of the regression coefficients shows that standardized regression coefficient for the variable of audit firm size with 95% confidence rejected H_0 and confirmed H_1. It can be stated that audit firm size has a significant effect on discretionary accruals index. These results indicate that audit firm size has a negative effect on discretionary accruals index. This means that by increasing the

size of the audit firm, the amount of discretionary accruals index in this study (the studied sample) decreases.

Table 5. Model Summary for Hypothesis 2

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.121a	.015	.006	.59428	1.777
a. Predictors: (Constant), VAR00004					
b. Dependent Variable: VAR00001					

Regression significance test (regression model linearity) for Hypothesis 2

There is no significant relationship between the auditor opinion and indicator of discretionary accruals (regression model is not linear) H_0:: r = 0

There is a significant relationship between the auditor opinion and indicator of discretionary accruals (regression model is linear) H_1: r ≠ 1.

Table 6. ANOVA TEST for Hypothesis 2

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.616	1	0.616	1.745	0.189[a]
	Residual	41.674	118	.353		
	Total	42.290	119			
a. Predictors: (Constant), VAR00004						
b. Dependent Variable: VAR00001						

Regression model ANOVA test results show that significance level of the F statistic value is larger than 5% and is not significant. So we can accept H_0 that shows the lack of relationship between the two variables and reject H_1. The results show that the independent variable does not have high explanatory power and cannot explain variance value of the dependent variable properly. In other words, the regression model of hypothesis 2 is not highly adequate and cannot be a good model.

Significance test of the coefficients for Hypothesis 2

Type of auditor opinion does not affect the index of discretionary accruals H_0 :: β = 0

Type of auditor opinion affects the index of discretionary accruals H_1: β ≠ 0.

Table 7. Coefficients TEST for Hypothesis 2

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.539	0.065		69.994	0		
	VAR00004	0.156	0.118	0.121	1.321	0.189	1.000	1.000
a. Dependent Variable: VAR00001								

Results of the regression coefficients table shows that as the significant level of regression coefficient of auditor opinion is greater than 5%, the type of auditor opinion has no significant influence on the discretionary accruals index. So the H_0 is accepted and H_1 is rejected by the confidence level higher than 95%.

Table 8 . Model Summary for Hypothesis 3

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.196[a]	.038	0.030	0.58709	1.685
a. Predictors: (Constant), VAR00003					
b. Dependent Variable: VAR00001					

Regression significance test (regression model linearity) for Hypothesis 3

There is no significant relationship between the switch of auditors and indicator of discretionary accruals (regression model is not linear) H_0:: r = 0

There is a significant relationship between the switch of auditors and indicator of discretionary accruals (regression model is linear) H1: r ≠ 1.

Table 9. ANOVA TEST for Hypothesis 3

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.619	1	1.619	4.696	.032[a]
	Residual	40.672	118	.345		
	Total	42.290	119			
a. Predictors: (Constant), VAR00003						
b. Dependent Variable: VAR00001						

Based on the ANOVA table results, the obtained F value was significant at the 5% error level. So H_0 is rejected and H_1 is confirmed. This means that there is a linear relationship between two variables. That is to say, independent variable has high explanatory power and can explain the amount of the dependent variable variance change. Namely, the regression model of the study is a good model for the hypothesis 3.

Significance test of the coefficients for Hypothesis 3

Auditors switch does not affect the index of discretionary accruals H_0 :: β = 0

Auditors switch affects the index of discretionary accruals H_1: β ≠ 0 .

Table 10. Coefficients TEST for Hypothesis 3

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.696	0.074		63.487	0		
	VAR00003	-0.233	0.107	-0.196	-2.167	0.032	1.000	1.000
a. Dependent Variable: VAR00001								

As coefficients table indicates, standardized regression coefficient for switch of auditors is in significant error level. Therefore, H_0 is rejected and H_1 is accepted. The results show that auditor's switch variable has an inverse significant impact on discretionary accruals indicator. That is to say, by increasing the switch of auditors, discretionary accruals indicator is reduced.

Summary of Results

The results indicate a significant negative correlation between the size of audit firm and discretionary accruals indicator. This means that there is a negative and significant relationship between the variables of audit firm size and earnings quality. Also, there is a non- significant positive correlation between the type of auditor opinion and discretionary accruals, which represents a non-significant positive correlation between the variables of the type of auditor opinion and earnings quality. Finally, there is a non- significant negative correlation between the variables of switch of auditor and the index of discretionary accruals, which indicates the negative and non- significant relationship between the switch of auditors and earnings quality.

Review of the Test Results of Sub-Hypothesis 1

There is a significant relationship between size of audit firm and discretionary accruals index. The results indicate that the error components have acceptable independence. That is to say, audit firm size as the independent variable has a high degree of explanatory power. There is a significant negative relationship between audit firm size and discretionary accruals index. Discretionary accruals have an inverse relationship with the size of audit firm. In other words, the index of discretionary accruals decreases by the increase of audit firm size.

Review of the Test Results of Sub-Hypothesis 2

There is a significant relationship between the type of auditor opinion and the index of discretionary accruals. The results indicate that the type of auditor opinion variable cannot explain a significant amount of discretionary accruals index. So, this represents the lack of correlation between the errors. The type of auditor opinion variable cannot adequately explain the changes of discretionary accruals, then there is no significant relationship between the variable of type of auditor opinion and discretionary accruals index. In other words, the positive relationship between the type of auditor opinion and discretionary accruals index is not significant.

Review of the Test Results of Sub-Hypothesis 3

There is a significant relationship between auditors switch and the index of discretionary accruals. The results indicate that auditor switch variable could justify a small percentage of changes in the index of discretionary accruals. The rest of the remaining variation is affected by outside factors of the model. The

outcome regression model has a relatively good explanatory power, and can explain the variability of the indicator of discretionary accruals as the dependent variable appropriately. The relationship between these two variables is an inverse and significant relationship. One can conclude that the auditor switch with a negative regression coefficient has an inverse relationship with the index of discretionary accruals. Of course, this amount is insignificant and does not ultimately have a significant impact on the quality of earnings.

Recommendations Based on Research Results

The Following Recommendations are Discussed Based on the Results:

Audit firm size variable in the research model had a significant relationship with the dependent variables. So we can suggest that other variables instead be used in future research.

Since the audit firm size variable had a significant effect on the dependent variable in this study, it is proposed that its effect be investigated on the other variables and other aspects of it become clear by further investigation.

The same can be investigated with regard to non- discretionary accruals, to determine whether this relationship will be repeated for non- discretionary accruals.

Note that the variables of type of auditor opinion and switch of audit firms do not affect discretionary accruals as the dependent variable of the study adequately, in future research it is better the relationship between other variables except these two variables, and discretionary accruals variables be measured.

Research period was 5 years. Extended up period and increased sample can lead to increased accuracy of the survey and achievement of more generalizable results.

According to the results obtained in relation to the type of auditor opinion variable, it is proposed that by increasing the study sample increase its influence.

Since the control variables affected the variable of type of auditor opinion, and have decreased its impact on discretionary accruals variable, it is proposed that the other variables be used as control variables.

Each of the independent and control variables can be tested separately in different industries.

Suggestions for Future Research

Research findings provide evidence for future research framework. It is suggested that in future the following topics be considered by the researchers of audit field.

With regard to the fact that the modified Jones model is used in the present study to estimate discretionary accruals, it is recommended that in future studies other models in the field of discretionary accruals estimation and other techniques of exploring the quality of earnings, including "Di Angelo" and "Heli"

and "Ball and Shiuwakumar" be used. Using other factors affecting earnings quality in the model is recommended too.

Hypotheses presented in this study are tested on the markets except Tehran Stock Exchange.

This study is repeated with regard to periods shorter than one financial year.

This study is repeated in various industries and for longer periods or with an increase in the sample size by taking 6 months or 3 months of data into considerations.

With respect to earnings management using accruals, standard coders are recommended that establish standards with regard to these items that do not enable administrators to manage earnings by manipulating these items.

Consistency with other studies:

Table 11. Consistency with other studies

	Consistency
I	Is consistence
Abdelghany 2005	Is not consistence
Sloan 1996	Is consistence

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