

# The Effect of Audit Firm Size and Age on the Quality of Audit Work

Farzin Rezaei<sup>۱</sup>, Saeed Shabani<sup>۲</sup>

## Abstract

This study is to investigate the effect of audit firm size and age on the quality of audit work. The sample of the study consists of ۲۰۱ firms listed in Tehran Security Exchange whose data has been analyzed during ۲۰۰۶ to ۲۰۱۰. The results of regression tests showed that an increase in age and size of audit firms causes a reduction in the use of committed goods, consequently, increases audit quality. Results suggest that, considering the two factors of establishing audit institutions and the number of auditing staffs to separate effects of each factor, has significant effect on audit quality.

**Key words:** audit quality, audit duration, size of audit firm, Discretionary accruals

## Introduction

The idea of auditor is presented to certify and validate the financial statements prepared by client's management, and if the credit and quality of the performance of the auditor is not objective, his idea does not add anything to the reliability of financial statements. It is believed that the independent audit provide reasonable basis for an honest assessment of the quality of the information provided in financial statements. The auditors, as representatives of stakeholders and shareholders, supervise on financial reporting practices of managers of profiting sectors, and detection of unusual cases of reported accounting by the manager depends on the validity and merit of the auditor.

Wallace (۱۹۸) defines audit quality in the form of the ability of an independent auditor to decrease abnormalities of the reflected information in the financial statements and the increased in the accuracy of this information. On the other hand, the conflict of interests of managers and owners, potentially affects the quality of distributed information and the importance of auditing role in protecting the interests of capital suppliers of profit sectors. Directors, as they are responsible for preparing the financial statements with the full knowledge of the financial situation of the company and by having more knowledge than users of financial statements, potentially try to show the image of financial sectors well and the investors, as the main providers of resources for companies, request complete and accurate information from companies.

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<sup>۱</sup> . Department of Accounting, Faculty of Management and Accounting, Islamic Azad University, Qazvin, Iran  
Email: [farzin.rezaei@qiau.ac.ir](mailto:farzin.rezaei@qiau.ac.ir)

<sup>۲</sup> . Master of Accounting, Islamic Azad University of Qazvin, Iran  
Email: [saeidshabany@yahoo.com](mailto:saeidshabany@yahoo.com)

## **The Issue of Research**

Auditing role in crediting to the interest information of the companies, following the recent presentation of companies' interests and the bankruptcy of big companies, is highly significant. Differences due to auditing quality have been presented as difference in credit by auditors and the quality of the profit of the owners. Since the auditing quality has different dimension and is inherently unobservable. There is no specific auditing characteristic to be considered as an indicator for it. Most previous studies have used the reputation of the auditor as an indicator for auditing quality and have studied the relationship between the reputation and quality profit (Tondlo and Vansterlen, ۲۰۰۸).

Also, evidences show that the most important audit quality measurement indexes is the auditor's size that these two have direct relationship with each other so that as the size of the auditor gets bigger, the audit quality gets better too. In this research, the size of the auditor refers to the reputation (commercial name). Because of the reputation of the auditor, the credit of the statements' information increases and the auditing quality will rise. Because large auditing organizations do a lot of efforts for training and using professional and efficient auditors, and this issue protects the reputation and avoid litigation rights against the audit firm.

Based on the above discussions, the main question of this study is stated as follows:

- Whether the duration of the auditor and audit firm size affect on audit quality or not?

## **Literature Review**

Bauwhede and Willekens, the two Belgian researchers tested the effects of the audit firm size on the auditing quality in Belgium market and put some sub issues, like the share of the auditor market, the number of the clients of the auditing firm, for audit size. Finally, the results show that there no significant relationship between the auditors' size and audit quality.

Zhou and Elder studied the relationship between audit quality and earnings management in SEO firms (Companies that are offering shares Bonds, but their securities have already been released) from ۱۹۹۱ to ۱۹۹۹ for a sample size of ۲,۴۵۳ companies. For audit quality, they represented auditor's size and auditor's expertise, and for earnings management, the optional commitment goods, and concluded that, ۱) large audit firms with lower earnings management in previous, later and even current years SEO have relationships. ۲) Industry specialist auditors have relationships with lower earnings management in the year SEO happens.

Deltas and Doogar, in their studies, found that as the diversity of auditing products is less, the audit quality of financial statements is higher.

Bauwhede and Willekens (۲۰۰۴), the two Belgian scholars, tested the effects of audit firm size on audit quality in the Belgian market for a sample size of ۱۳۰۲ companies. For audit size, they considered some indexed such as, the auditor's market share, the number of the clients for audit firm, the number of partners of the audit firm, the total assets and total operating profit for audit firm. Their research hypothesis was that "there is a significant relationship between firm size and audit quality". Finally, the results of their research showed that there is no significant relationship between audit quality and audit size.

Audit firm industry specialization has been assessed on the basis of client companies' assets to total assets of companies in the specific industry and audit size based on large or non-large audit firms. The results showed that the firms that are audited by auditors with more quality have more accurate earnings forecasts and firms that are audited by auditors other than the Big have deviation in earnings forecasts.

Louis Henock revealed that large audit firms usually offer better services than small firms. But, there were some small firms which offered better consultation to their clients.

Fuerman, in his own research, concluded that large audit firms have fewer audit failures.

Gul and colleagues, in their study, examined the relationship between audit tenure and audit quality between ۱۹۹۳ and ۲۰۰۱. They considered audit tenure at three levels: ۱) short term (۲ to ۳ years), ۲) Medium (۴ to ۸ years), and ۳) long term (۹ years or more). Their hypothesis was that there is a relationship between audit quality and audit tenure levels. Their study found that ۱) the conservatism of the auditor decreases with tenure increase, and ۲) the failure of audit report is greater in the first year of Clients Company; and the longer the audit firm tenure is to Clients Company, the higher the audit quality will be.

Jafari studied about the audit quality of the members of Iran's official accountants' community. His research examined whether official accountants have independence and qualifications to audit the financial statements or not. In his research, audit quality, as the qualifications of the auditors in the discovery of misstatement material and reporting it as the audit quality, has been considered. The researcher examined some factors such as auditors' specialization, the existence of the laws and regulations and the audit firm size of the members of Iran official accountants' community. This study was conducted in four stages as follows:

۱. The identification of affecting factors on the quality of the members of Iran's official accountants' community by the library research.
۲. Getting the ideas accounting and auditing experts about the impact of identified factors on audit quality by community members.
۳. Examining the actual audit quality of Iran's official accountants

۴. Recommendations for improving the audit quality of the official accountants of Iran's official accountants' community

One of their hypotheses was that there is a significant relationship between the size of the audit firm of the official accountants of the community and their motive to maintain their neutrality for reporting the found distortions.

Through t-test, the above hypothesis was proved, and finally the researchers suggested that some regulations are developed so that the smaller audit firms merge and form a larger audit firm to improve audit quality.

Azinfar studied the relationship between audit quality and audit firm size and the found distortions were chosen on the basis of audit quality. About the size of audit firms, also, audit firms were classified into two major categories. In this research, audit organizations are considered large firms and other organizations small. Hypothesis of this study was that there is a significant relationship between the size of the audit firm and the variety of found distortions. The results showed that audit firms of (small) official accountant community have higher audit quality than audit organization, the largeness of audit firms in Iran does not necessarily result in large audit quality.

Seyyedi in his research on the role of the independent auditors to reduce earnings management examined the relationship between the independent auditors and their opinion, and the condition in audit report on the accruals. In this study, to estimate accruals, the modified model of Jones is used. In this study, the type of audit firm is divided into two types of audit firm and other organizations, and audit opinion is divided into two categories of qualified and unqualified, and the results showed that the type of audit firm is related to accruals.

Ahmad, in his own research, examined the effect of audit quality on the predictive ability of interests. The population of the survey consisted the companies listed in Tehran Security Exchange between the periods from ۲۰۰۳ to ۲۰۰۵. For audit quality, he considered ۱۰ large Iranian audit companies. Furthermore, the hypothesis is as follows: The investor's ability to predict the future profitability of the firms by firms, are greater in firms which have been audited by large audits. Overall, the study supports the above hypothesis. And the companies which are audit by ۱۰ large firms, have more profits than those are audited by non-Large ۱۰.

Nazemi Ardekani, in his study, examined the relationship between specialization in auditor industry and earnings management option. He examined ۱۱۵ companies listed in Tehran Security Exchange during the period of ۲۰۰۲ to ۲۰۰۷. His research hypothesis was that accruals of companies containing specialist audit in the industry to other firms is lower. He used the Jones model for accruals. He also used market value for

expertise in auditor industry. The result of the study was that the firms whose auditors are specialized in the industry have lower management accruals.

Nounahal and colleagues, in their study, examined the relationship between audit quality and reliability of accruals is to determine audit quality by two measures audit firm size and auditor tenure; to determine the reliability of accruals following the model of Richardson et al, the stability of accruals were used. The study period is between ۲۰۰۱ to ۲۰۰۷. The study hypothesis was that the reliability of accruals of the firms that are audited by high quality auditors is higher than the firms which are not audited by these firms. The results show that companies which are audited by higher quality auditors, compared with those audited by lower quality auditors, have higher accruals stability coefficient, and thus have higher reliability accruals.

Hassas Yeganeh and Azinfar studied the relationship between audit quality and audit firm size. So, audit organizations which are a member of official accountants community are small audit (small audit firms), and the audit organization, because of greater number staffs and long history, are considered as large audit. The criterion of researchers to examine the quality, comparing discovered distortions and reported in audit statements, is done in five different distortions through comparing the audit report of the present year and cumulative profit and loss of circulated interests of the following year. The method used was two-dimensional and the statistical analysis in this study shows a significant and reverse relationship of audit quality and audit firm size (audit organization).

Namazi and colleagues, in their study, examined the relationship between audit quality and earnings management. Two criteria of audit firm size and auditor tenure were used for determining audit quality; and to calculate earnings management, Jones modified model is used. In this study, ۶۱ companies between the periods of ۲۰۰۱ to ۲۰۰۷ have been tested. The study hypothesis was that there is relationship between audit firm size and tenure and earning management. The results show that there is positive but insignificant relationship between audit firm size and earning management, and there is a positive and significant relationship between auditor tenure and earning management.

## **Theoretical Foundations**

Stock companies play a major role in the economy. Millions of people directly and indirectly invest in the company, and the success of the company depends on the investors and creditors desire to invest in the company and because financial statements are one of the important sources of information in companies, they have important place in the decisions of investors and creditors. So, the directors are trying to make financial statements desirable by the investors, and it is because of benefit seeking incentives of the managers of the companies, [△](#) because many benefits are paid according to their performance. Meanwhile, the reported

earnings of the firm are important and are of interest to investors, and it is the basis of evaluation performance of management and future cash flows.

Based on the principles outlined in the agency theory, the interests of managers and owners of commercial sections are generally not matching, and this issue provides a motivation for biased financial reporting and contrary to the facts by the managers. The overall results will be in a way that the image of commercial sections appear better than real status, and the motivation to inject capital and financial resources to the companies by people outside the company will increase. In this condition, the existence of supervising mechanisms on the process of the reporting of managers will decrease their profit seeking motivations and helps to keep the rights of the capital suppliers of the companies. Auditing, quality, and the credit of auditing process are considered as supervising mechanisms outside the company which can have essential roles in decreasing the distortions of the agencies.

Therefore, the following hypotheses are formulated:

**The first Hypothesis:**

Duration of auditing has significant effect on the audit quality.

**The second hypothesis:**

Audit firm size significantly affects on audit quality.

**The third hypothesis:**

Audit firm size significantly affects on the relation between audit experiences and audit quality.

**The Population and Sample of the Study**

In order to test the hypothesis, the present study uses classified and audited financial data of the firms listed in Tehran Security Exchange. The statistical population includes all firms that have the following conditions.

۱. The company does not belong to investment firms, banks and insurance companies.
۲. During the years ۲۰۰۵ to ۲۰۱۰ exist in the stock market.
۳. End of the financial year is March.
۴. In the study period, it does not have changes in the fiscal year.
۵. Trading Symbol of the company would be active and may not have stopped its trading symbol more than three months in a year.
۶. Financial information is available in the study period.

Given the above, the sample in this research is the systematic elimination, and the study period is ۵ years, including the years ۲۰۰۶ to ۲۰۱۰.

Based on the conditions and considerations in the systematic elimination sampling, 200 samples were selected for the tests. The study period is 5 consecutive years, so the final sample size is 1000 years (200 x 5).

## Research Variables and their Measurement methods

### Dependent variable:

Dependent variable is a variable that the aims of the researcher are to describe or predict its variability. Analyzing the dependent variable and recognizing the factors affecting it, one can identify the answers or solutions to the problem. Researchers like to quantify and measure this variable and other variables that influence on these variables. In this study, **the size of control variable is measured** as the dependent variable.

**Zimsiki Bankruptcy Adjusted Index (FC):** To measure this Index, first by the pattern of **Zimsiki Bankruptcy** the amount of Z is computed, the model is as follows:

$$Z_{it} = -1,432 + 2,78 X_1 + 1,02 X_2$$

$X_1$  The ratio of net interests to the total assets

$X_2$  The ratio of total debt to total assets

If the amount of calculated Z in year t is more than 0.5, the company is bankrupted and if it is less than 0.5, the firm is recognized as not bankrupted. Therefore, after calculating virtual **Zimsiki** index variable, FC is defined as, in the case i at the end of the year t, based on **Zimsiki** index is detected as bankrupt ( $Z > 0.5$ ), it takes zero value otherwise one.

### Independent variables

Two variables of audit firm size (Big) and auditing lifetime (Age) were considered as independent variables, each of which is calculated as follows:

**Audit Firm Size:** In this study it is assumed that audit firm size is a function of the number of employees, so to determine an index for audit firm size, the number of employees of that firm is used, and it is assumed that the number of staffs in large firms is more.

So if  $N_{per\ it}$  shows the number of staffs in the audit firm that in the year t has audited the basic financial statements of the firm i, first to make the variable of the number of personnel harmonious, this variable is divided to the average of total staff number of the firm, then the previously calculated mean is gained for all the institutes during the study period, and, finally, the size of the virtual variable for audit size is defined as, if the number of staffs to the average of the number of staffs is more than the mean, it is considered as a large firm and has a value of one, otherwise, it is considered as a small firm and has a value of zero.

**Auditing lifetime (Age):** In this study it is assumed that the lifetime of audit firms is a function of the establishing date of the institute, therefore, to obtain an index for measuring the lifetime of the audit firms, the establishing date of the institute is used. Namely, first, for the year t, the time period from the establishing year of the firm to the year t is calculated and stored as the firm establishing experiences variables (SAB). Then the mean of the establishing experience variable is calculated and the virtual variable of the lifetime is calculated as such that this variable takes the value of 1 if the audit institution establishing experience is higher than the mean of the establishing experience of all the institutes in the time period of the study, otherwise, it will be zero.

## Research Models

In order to investigate the first hypothesis, the  $R_{it}$  model is used.

$$R_{it} = \beta_0 + \beta_1 \frac{E_{it}}{TA_{it-1}} + \beta_2 \frac{\Delta E_{it}}{TA_{it-1}} + \beta_3 \frac{CF_{it}}{TA_{it-1}} + \beta_4 \frac{\Delta CF_{it}}{TA_{it-1}} + \varepsilon_{it}$$

To investigate the second hypothesis, the following pattern is used.

$$R_{it} = \beta_0 + \beta_1 \frac{E_{it}}{TA_{it-1}} + \beta_2 \frac{\Delta E_{it}}{TA_{it-1}} + \beta_3 \frac{CF_{it}}{TA_{it-1}} + \beta_4 \frac{\Delta CF_{it}}{TA_{it-1}} + \beta_5 INTR_{it} + \beta_6 CRR_{it} + \beta_7 LIQR_{it} + \beta_8 SOLR_{it} + \varepsilon_{it}$$

To evaluate the third hypothesis, the following model is used:

$$R_{it} = \beta_0 + \beta_1 \frac{E_{it}}{TA_{it-1}} + \beta_2 \frac{\Delta E_{it}}{TA_{it-1}} + \beta_3 \frac{CF_{it}}{TA_{it-1}} + \beta_4 \frac{\Delta CF_{it}}{TA_{it-1}} + \beta_5 \left( \frac{E_{it}}{TA_{it-1}} \times Dep_{it} \right) + \beta_6 \left( \frac{\Delta E_{it}}{TA_{it-1}} \times Dep_{it} \right) + \beta_7 \left( \frac{CF_{it}}{TA_{it-1}} \times Dep_{it} \right) + \beta_8 \left( \frac{\Delta CF_{it}}{TA_{it-1}} \times Dep_{it} \right) + \varepsilon_{it}$$

## Results of Testing Hypotheses

The result of testing the first hypothesis:

Since the research data is a combination of cross-sectional and time series data, so before estimating the item (1), to select between the combination data method or cross-sectional, the F test of **Limer** is used.

### Limer's Test Result

Models	Test	t	Degree of Freedom	Probability	Result
1-1	<b>Limer F</b>	5,689	(997.200)	0,00	Using Panel Data
	<b>Housman</b>	102,104	5	0,00	Using Fixed OSL Effects
1-2	<b>Limer F</b>	5,689	(997.200)	0,00	Using Panel Data
	<b>Housman</b>	102,104	5	0,00	Using Fixed OSL Effects

Model 1: The Test Result of the First Hypothesis

Method: Panel Least Squares	Sample: 1384 1389	Cross-sections included: 201
Model1 - 1: $DA_{it} = \gamma_0 + \gamma_1 Age_{it} + \gamma_2 OCF_{it} + \gamma_3 LA_{it} + \gamma_4 LEV_{it} + \gamma_5 FC_{it} + \varepsilon_{it}$		
Model1 - 2: $DA_{it} = \gamma_0 + \gamma_1 (Age_{it})^2 + \gamma_2 OCF_{it} + \gamma_3 LA_{it} + \gamma_4 LEV_{it} + \gamma_5 FC_{it} + \varepsilon_{it}$		



Method: Panel Least Squares      Sample: 1384 1389      Cross-sections included: ٢٠١							
Model١-٢				Model١-1			Models
Significance	t	Coefficients	Variables	Significance	t	Coefficients	Variables
٠,٠٠	٣,٨٦	٠,٤٧٧	C	٠,٠٠	٣,٨٦	٠,٤٧٧	C
٠,٠١	-٢,٧٩	-٠,٠٠٣	AGE <sup>2</sup>	٠,٠١	-٢,٧٩	-٠,٠٠٦	AGE
٠,٠٠	-٥٧,٣٢	-١,١١٦	OCF	٠,٠٠	-٥٧,٣٢	-١,١١٦	OCF
٠,٢٢	-١,٢٢	-٠,٠١١	LA	٠,٢٢	-١,٢٢	-٠,٠١١	LA
٠,٠٠	-١٢,١٠	-٠,٢٧٧	LEV	٠,٠٠	-١٢,١٠	-٠,٢٧٧	LEV
٠,٠٠	١٤,٣٥	٠,٢٩٧	FC	٠,٠٠	١٤,٣٥	٠,٢٩٧	FC
Amount	Test	Amount		Amount	Test	Amount	
٠,٣٥	K-S	٠,٨٣	R <sup>2</sup>	٠,٣٥	K-S	٠,٨٣	R <sup>2</sup>
٢٢,٩٩	F Fischer	٠,٧٩	R <sup>2</sup> Balanced	٢٢,٩٩	F Fischer	٠,٧٩	R <sup>2</sup> Balanced
٠,٠٠٠	Probability of Fischer F	١,٦٦	DW	٠,٠٠٠	Probability of Fischer F	١,٦٦	DW

According to test results, the significance of the regression coefficients are shown in this figure: except the control variable of log asset value (LA), other variables have a significant effect on discretionary accruals as the dependent variable because the probability of significance of these coefficients in both models is less than ٥ percent. The results indicate that both variables Age and Age<sup>٢</sup> have a negative relationship with accruals, in other words, increasing experience of establishing audit firms, beside having effect on the audit quality, decreases the application of accruals and thus increases the audit quality.

Therefore, the results show that the establishment of institutions as an index of age of the audit firms has significant effect on audit quality auditing, and, so, there is no reason to reject the hypothesis, and this hypothesis is accepted at a confidence level of ٩٩ percent.

Also, other results about the assumption indicate that ٨٣ percent of changes in discretionary accruals are explained by the independent variables of these patterns. The difference between the coefficient of determination and coefficient of balanced determination is because of the logarithm variable of the market value (LA) because this variable has increased the coefficient of determination without having any significant effect on the rate of accrual, however, the adjustment coefficient is calculated without taking into account the

effect of neutral variables . The first assumption is not rejected, and it can be associated, because of the accordance, with the theoretical and research findings of Namazi and colleagues.

### The Test Result of the Second Hypothesis:

Since the combined data is from cross-sectional and time series data, so before estimating the item number (۲), for selecting the procedure or combination of cross-sectional data, the **F Limer test** is used.

#### Limer's Test Result

Models	Test	t	Degree of Freedom	Probability	Result
۲-۱	Limer F	۵,۶۶۷	(997.200)	۰,۰۰۰	Using Panel Data
	Housman	۱۰۱,۸۸۹	۵	۰,۰۰۰	Using Fixed OSL Effects
۲-۲	Limer F	۵,۶۷۷	(997.200)	۰,۰۰۰	Using Panel Data
	Housman	۱۰۱,۸۸۹	۵	۰,۰۰۰	Using Fixed OSL Effects

#### Model 2: The Test Result of the Second Hypothesis

Method: Panel Least Squares				Sample: 1384 1389				Cross-sections included: ۲۰۱			
Model2 – ۱: $DA_{it} = \gamma. + \gamma_1 Big_{it} + \gamma_r OCF_{it} + \gamma_i LA_{it} + \gamma_o LEV_{it} + \gamma_1 FC_{it} + \varepsilon_{it}$											
Model2 – ۲: $DA_{it} = \gamma. + \gamma_r (Big_{it})^r + \gamma_r OCF_{it} + \gamma_i LA_{it} + \gamma_o LEV_{it} + \gamma_1 FC_{it} + \varepsilon_{it}$											
Model۲-۲				Model۲-1				Models			
Significance	t	Coefficients	Variables	Significance	t	Coefficients	Variables				
۰,۰۰	۳,۸۲	۰,۴۷۳	C	۰,۰۰	۳,۸۲	۰,۴۷۳	C				
۰,۰۱	-۲,۷۹	-۰,۰۰۲	BIG <sup>2</sup>	۰,۰۱	-۲,۷۹	-۰,۰۰۳	BIG				
۰,۰۰	-۵۷,۱۵	-۱,۱۱۶	OCF	۰,۰۰	-۵۷,۱۵	-۱,۱۱۶	OCF				
۰,۲۳	-۱,۲۱	-۰,۰۱۱	LA	۰,۲۳	-۱,۲۱	-۰,۰۱۱	LA				
۰,۰۰	-۱۲,۱۴	-۰,۲۷۸	LEV	۰,۰۰	-۱۲,۱۴	-۰,۲۷۸	LEV				
۰,۰۰	۱۴,۳۴	۰,۲۹۷	FC	۰,۰۰	۱۴,۳۴	۰,۲۹۷	FC				
Amount	Test	Amount		Amount	Test	Amount					
۰,۳۸۱	K-S	۰,۸۲۵	R <sup>2</sup>	۰,۳۸۱	K-S	۰,۸۲۵	R <sup>2</sup>				
۲۲,۹۵۴	F Fischer	۰,۷۸۹	R <sup>2</sup> Balanced	۲۲,۹۵۴	F Fischer	۰,۷۸۹	R <sup>2</sup> Balanced				
۰,۰۰۰	Probability of Fischer F	۱,۶۵۶	DW	۰,۰۰۰	Probability of Fischer F	۱,۶۵۶	DW				

The results indicate that both variables Big and Big<sup>2</sup> are negatively related to the application of accruals, on the other hand, the increase in the number of audit firm employees, along with being an effective factor in audit quality, reduces the use of accruals and, as a result, increases audit quality. So, the results show that the number of employees as an index of the size of auditing firms has significant effect on audit quality and therefore there is no reason to reject the hypothesis and it is accepted at the confidence level of 99 percent. About this assumption, the other results indicate that 87 percent of the changes in the accruals by the independent variables, this pattern is explained.

The difference between the coefficient of determination and coefficient of balanced determination is because of the logarithm variable of the market value (LA) because this variable has increased the coefficient of determination without having any significant effect on the rate of accrual, however, the adjustment coefficient is calculated without taking into account the effect of neutral variables. Not rejecting the second hypothesis is in accordance with the findings of theoretical research Deltas and Doogar, Fuerman, Jafari, Azinfar, Ahmadi, Nonahal et al., and in contrast with the findings of Louis Henock, Bauwhede and Willekens (2004), as well as, Hassas Yeganeh and Azinfar. So, the contrast in the findings of this research with other findings outside the country may be due to differences in environment of Iran and abroad, and its conflict with the researches of Hassas Yeganeh and Azinfar can be due to the effective factors that are considered for audit quality.

### The Test Results of the Third Hypothesis:

Since the combined data is from cross-sectional and time series data, so before estimating the item number (3), for selecting the procedure or combination of cross-sectional data, the **F Limer test** is used.

#### Limer's Test Result

Pattern	Test	t	Degree of Freedom	Probability	Result
1-1	Limer F	5,673	995,200	0,000	Using Panel Data
	Housman	102,655	7	0,000	Using Fixed OSL Effects

Model 3: The Test Result of the Third Hypothesis

Method: Panel Least Squares      Sample: 1984 1989      Cross-sections included: 201			
Model3: $DA_{it} = \gamma_0 + \gamma_1 Age_{it} + \gamma_2 Big_{it} + \gamma_3 (Age_{it} \times Big_{it}) + \gamma_4 OCF_{it} + \gamma_5 LA_{it} + \gamma_6 LEV_{it} + \gamma_7 FC_{it} + \varepsilon_{it}$			
Significance	t	Coefficients	Variables
0,000	3,82	0,473	C

Method: Panel Least Squares		Sample: 1984 1989	Cross-sections included: 201
•,••	-۶,۵۹	-۰,۰۰۴	AGE
•,••	-۵,۸۶	-۰,۰۰۶	BIG
•,••	-۶,۰۲	-۰,۰۰۹	AGE*BIG
•,••	-۵۷,۱۴	-۱,۱۱۶	OCF
•,۲۵	-۱,۱۶	-۰,۰۱۱	LA
•,••	-۱۲,۰۸	-۰,۲۷۷	LEV
•,••	۱۴,۲۷	۰,۲۹۶	FC
Amount	Test	Amount	
•,۴۲۵	K-S	•,۸۲۵	R2
۲۲,۷۵۶	F Fischer	۰,۷۹۹	R <sup>2</sup> Balanced
•,••	Probability of Fischer F	۱,۶۶۴	DW

These results indicate that all three variables of Age and Big and Age \* Big have a negative relation with accruals; in other words, the simultaneous increasing of the size and duration of establishment, along with being an effective factor in the audit quality, will reduce the application of the accruals, and, as a result, increases the audit quality. The coefficient of Age \* Big with the amount of -۰,۰۰۹ is more than the two variables of size and bigness of -۰,۰۰۴ and -۰,۰۰۶. It shows that the consideration of the two factors of size and magnitude of audit firms at the same time have a great effect on audit quality of audit firms. Also, the other results suggest that ۸۳ percent of the changes of accruals will be explained by the independent variables of this pattern.

The difference between the coefficient of determination and coefficient of balanced determination is because of the logarithm variable of the market value (LA) because this variable has increased the coefficient of determination without having any significant effect on the rate of accrual, however, the adjustment coefficient is calculated without taking into account the effect of neutral variables. Also, except the control variable of the asset's value (LA), other variables have a significant effect on accruals as the dependent variable because the

probability of significant coefficients in the model is less than  $\alpha$  percent. Not rejecting the second hypothesis is in accordance with the findings of theoretical research of Bauwhede and Willekens, Fuerman, and is against the findings of Louis Henock, and Hassas Yeganeh and Azinfar.

### **Recommendations Based on the Results of the Research Hypotheses:**

This research, according to the evidences from the studies and the test results of the hypothesis, recommends some suggestions for the Tehran Security Exchange Organization, corporate management, shareholders, creditors, banks and credit institutions, students and researchers as follows:

۱. It is proposed that in order to increase the audit quality we should use the firms with long age than short age. It is hoped that the considerations relating to company's brand and reputation will increase the audit quality.
۲. It is proposed to combine the institutes with small size and by giving the facilities to the smaller institutes cause the growth and better training of the staffs.
۳. It is recommended that in order to maximize the quality of audits the firms with longer ages are used.

### **Suggestions for Future Researches:**

۱. The use of audit firms that have higher audit quality will provide relative confidence in the users of financial statements with respect to the accuracy of information provided in the financial statements. Hence, in relation with the first hypothesis, it is recommended to pay attention to the effect of audit firm reputation and brand on the value of the audited company.
۲. As the number of clients are more in the large firms, the auditors will be able to observe and gain experience in different industries, and with the absorption of more forces which will bring the experience of different industries, the possibility of using their experiences will increase, so in relation with the second hypothesis, it is proposed to investigate the effect of audit firm size on firm specialization in the industry.
۳. As analyzing the third hypothesis shows, the two factors of greater age and greater size simultaneously will have greater effect on the audit quality. But about the third hypothesis it is recommended to investigate the effect of these two factors individually on audit quality. Also, according to the previous research on the relationship between corporate governance, the combined effect of size and age of the audit firm and corporate governance tools used in the audited firm on audit quality can be examined.

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