

The effect of the audit report on the relevance of accounting information

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Abstract

To increase public confidence to invest in the stock of listed companies on the Stock Exchange, accounting information should have qualitative features such as relevance, reliability, comparability, and intelligibility. The accounts must be audited for users to trust this financial information. According to the separation of ownership and management, discussion of corporate governance as well as related theories have been proposed such as the agencies which have been proposed, the need to audit financial statements is absolutely necessary. The audit creates added value for financial statements. Thus, the aim of this paper is investigation the effect of the audit report on the relevance of accounting information. Testing hypotheses have been investigated by using cross-sectional data of 105 companies among the listed companies in Tehran Stock Exchange in 2011 to 2015. The results indicated that there is a significant relationship between the audit firm, the efficiency of assets, and the ratio of financial independence to the rate of efficiency; but the Stock returns has not been affected by audit report with independent variables. Fitting of the second hypothesis indicated that the return on assets and financial independence in companies with the conditional report is more than in companies with the qualified report. Also, the financial independence in companies which have been audited by large firms is greater than in companies which have been audited by other firms.

Keywords: size of audit firm, kinds of audit reports, financial independence, efficiency.

Introduction

Among the most important factors in creating fundamental changes in the economic environment of Iran, we can point out some factors such as public ownership of firms, financing via public participation, and privatization of government sectors and financial firms (Tamandeh, 2016). In this condition, transparency and high quality of financial information are very important because it is the base of the optimal economic decisions of investors and creditors. According to the theory of manager agency, agents are company's shareholders; but sometimes managers have placed in situations that their decision is not in favor of the company's shareholders and cause flawed in financial reports. Sometimes managers put their personal opinions in the financial reports to mislead shareholders about the economic performance. In other hands, the ruling audit environment, in an enterprise plays a significant role in order to provide high-quality information. In fact, audit creates a mechanism to provide transparent and reliable information. In this research, we have investigated the effects of audit on listed companies in Tehran Stock Exchange.

Literature review

Elliott (2009) studied the impact of audit transparency in investor's decisions. The results indicated that with the help of accounting transparency, the ability to the reaction, predict, and judge for investors about the devaluation of stock will increase (Elliott & Krische & pecheer, 2009).

Change et al., (2010) investigated the reaction of the market about the changing of the auditor in four large companies. They divided the study period into two periods. The results indicated that the reaction of the market was positive (Change and cheng, 2010).

Hsu et al., (2011) investigated the impact of the type of the auditor's report on company's share price behavior in Taiwan. The results indicated that in days which non-accepted audit reports have been published, a negative return has been created for investors. Therefore, they concluded that the type of audit has an influence on the behavior of stock prices. They recommended that investors must refrain from buying shares with negative returns because their audit reports in non-accepted (Hsu & young & chu, 2011).

Lee and Lee (2013) suggested that audited financial statements which are audited by the big institutions have higher quality and less error compared to other institutions (lee, 2013).

Mihaela & et al., (2015) conducted a study about the impact of audited reports on Romanian financial statements. Obtained results from ANOVA regression analysis indicated that audit by 4 large firms and provided information by the audit report has an impact on stock returns regardless of the type of report and information from the financial statements (Mihaela & bogda, 2015).

Savadlou (2004) studied the impact of the auditor's report on the earnings per share, dividend per share, financial ratios of household appliances industry companies and machinery in listed companies in Tehran Stock Exchange. The results indicated that the decision-makers consider the articles of reports to determine EPS and DPS, and also have a correlation with the articles of the auditor's report, and they are impressionable (Savad loo, 2003).

Shokri chessmen sabzi (2005) investigated the impact of the auditor's report on the decision of the users of financial statements. The result of the study indicated that there is a significant difference between the decisions taken based on the financial statements with the audit report and decisions taken based on the financial statements without audit report (Shokri, 2004).

Sang-sefidi (2006) reviewed the behavior of investors in the Tehran Stock Exchange in terms of the quality of inserted information in the audit report. The results indicated that the investors in the Stock Exchange did no reaction about the clauses of audit report of profit and loss, variable ratio of net interest margin, inventory turnover ratio, and the clauses of the audit report of the left-side items of balance sheet due to the variable ratio of total debt to total assets. The investors only notice to the clauses of the audit report of the left-side items of balance sheet due to return variable of shareholders and long-term debt to equity ratio (Sang sefidi, 2006).

Mousavi Shiri (2008) studied the impact of the auditor's report on the quality of financial reporting in Iran. The results indicated that the creditors, shareholders, and investors rely on the auditor's report for financial decisions. These reports increased the quality of financial sheets but not in all aspect of it such as caution, completeness of information, the timeliness of information, understandable information, and identify the content of trading (Mousavi Shiri, 2008).

Darabi and Jafari (2012) studied the impact of articles of independent auditor's report on financial reports' transparency of automobile and custom manufacture companies' group in 2003-2009. The main result of this research indicated that the articles of independent auditor's report cause transparency in financial reports' of those companies in Tehran Stock Exchange (Darabi & rezaei, 2012).

Banimahd and Ali Ahmadi (2013) conducted a study about the impact of an analytical review of audit reports on the capital markets in developed and developing countries. The results indicated that usefulness of the audit report can be analyzed by examining the market reaction to audit reports (Banimahd & Ahmadi, 2013).

Taghizadeh et al., (2015) investigated the stock returns of listed companies in Tehran Stock Exchange. Results indicated that there is a significant relation among the sizes of the audit, audit tenure, and stock returns.

Hypotheses

According to the theoretical foundations, the hypotheses of this study are as follow:

The first hypothesis: there is a relation between the audited financial statements and stock returns and the function of companies and ROI.

The second hypothesis: there is a relation between the audited financial statements by large firms, stock returns, the function of companies, and ROI.

Research variables and how to calculate them

The variables are summarized in the following table:

Table 1. How to measure variables

Row	Variable	Abbreviation signs	Variable type	Method to measure
1	Return on Investment	CGY	Dependent	$Capital\ Gains\ Yield = \frac{P_1 - P_0}{P_0}$ P ₀ =Initial Stock Price P ₁ = Stock Price after 1st period
2	Return on Equity	ROE	Independent	$ROE = Net\ Incom / Shareholders\ Equity$
3	Return on assets	ROA	Independent	$ROA = Operating\ Incom / Total\ Assets$
4	Profit margin	NM	Independent	$NM = Net\ Income / Turnover$
5	Towards financial independence	FAR	Independent	$FAR = Shareholders\ Equity / Total\ Assets$
6	Audit	D _{UO} & D _{QO}	Independent	D _{UO} =1 (unqualified opinion) D _{UO} =0 (comment failed)
7	The type of auditor	D _{Bi}	Independent	D _{Bi} =1 D _{Bi} =0

According to aforementioned variables and hypotheses of study, the hypothesis test model exactly is as follow; here Y is the dependent variable (efficiency rate) and Xs are independent variables (return on equity, return on assets, profit margin, financial independence, audit, and auditor):

$$Y = \delta + \alpha_1 DUO + \alpha_2 DQO + \alpha_3 DB4 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_i X_i + \dots + \beta_j X_j + \beta_{j+1} (X_1.DUO) + \beta_j + 2(X_1.DQO) + \beta_j + 3(X_1.DB4) + \dots + \beta_{j+1} (X_i.DUO) + \beta_{j+2} (X_i.DQO) + \beta_{j+3} (X_i.DB4) + \dots + \beta_n - 2(X_j.DUO) + \beta_n - 1(X_j.DQO) + \beta_n (X_j.DB4) + \epsilon$$

Methodology

This research in terms of aim is an applied research. The method of research in terms of nature and content is a correlation. The research has been carried out within the framework of deductive-inductive reasoning. The theoretical principle and literature obtained via library studies, articles and sites in the form of deductive; and gathering information to verify or reject hypotheses had been done in an inductive way.

Statistical society and sample

The statistical society in this research is the listed companies in Tehran Stock Exchange in 2011-2015. The Proper sampling method is the systematic removal method. Eventually, 105 companies have been chosen.

Methods and gathering tools

The test method of data in the current study is the compilation method which has been done with Eviews Software. In the Descriptive Statistics division, Data analysis was performed by using the central index such as mean, and dispersion indicators such as standard deviation, and skewness and kurtosis. The Dickey-Fuller test has been used in order to evaluate the reliability of variables. The Jarque-Bera test has been used for the normality test of residuals. The Fleamer test has been used for choosing better model between the data panel method and pool model in order for estimating the efficacy of the model.

Descriptive statistics

In the descriptive statistics division, data have been analyzed by using central parameters such as mean and dispersion indices such as standard deviation, skewness, and kurtosis.

Table 2. Descriptive Statistics of research variables

Description	Variable type	Average	Middle	Standard deviation	Skewness	Elongation
CGY	Dependent	1/192	-0/0026	4/03	5/14	38/79
ROE	Independent	0/523	0/274	3/23	21/5	479/34
ROA	Independent	0/148	0/117	0/112	1/163	4/07
NM	Independent	0/219	0/117	0/385	10/57	172/27
FAR	Independent	0/401	0/373	0/211	0/486	2/86
D _{UO}	virtual	0/465	1	0/499	0/138	1/019
D _B	virtual	0/251	0	0/434	1/14	2/3

Mean and standard deviation are most important indicators for central parameters and dispersion indices. In this paper these values are equal to 1.192 (4.03) for the dependent variable and these are equal to 0.523(0.323), 0.148 (0.112), 0.219 (0.385), and 0.401 (0.211) for independent variables. For virtual variables these values equal to 0.465 (0.499) and 0.251 (0.434).

Model validation

- Jarque-Bera

H0: Data follow a normal distribution for research variables.

H1: Data do not follow a normal distribution for research variables.

Table 3. The Jarque- Bera test

Description	Jarque amount Bera	The significance level
CGY	30051	0/001
ROE	4956330	0/001
ROA	142	0/001
NM	630397	0/001
FAR	20/87	0/001
D _{UO}	86/67	0/001
D _B	123/63	0/001

The normality of variable data is essential for regression because if they not, the real result will not be obtained. For determining the distribution of data, usually, two tests (K-S in SPSS and The Jarque-Bera test) have been used. In this paper we have used The Jarque-Bera test in Eviews Software. The distribution of data was abnormal. There are two ways to normalize variables (Remove the outliers):

1. Remove the outliers, and insert the mean instead of deleted data
2. Use math function (We used math function in this paper.)

Unit root test

The reliability of the variables has been studied before the analyzing and testing the hypotheses. To obtain a real result, the variables should be reliable. We used the unit root test to check the reliability of data. The results indicated that, the unit root is less than 0.05 for all variables, so the variables are reliable.

Table 4. Unit root test

Variables	Statistics	Probability of Error
CGY	-17/22	0/00
ROE	-22/75	0/00
ROA	-18/68	0/00
NM	-22/3	0/00
FAR	-17/84	0/00
DUO	-22/79	0/00
DB	-23/22	0/00

Heterogeneity of variance testing

In the sequence statistics, the random variables with different variance called Heterogeneous variance. Breusch-Pagan test has been used in this paper.

Table 5. Heterogeneity of variance testing

Description	Statistics (f)	The significance level (probability)
The first hypothesis	1/104	0/351

The first hypothesis model does not have the heterogeneity of variance and is proper for testing the hypothesis.

Fleamer test

The Fleamer test has been used for to choose between methods of panel data and consolidated data. Table 6 illustrated the results of the Fleamer test. The null and alternative hypotheses for Fleamer test are as follow:

H0: consolidated data

H1: panel data

Table 6. The result of Fleamer test

Description	Statistics (f)	p-value	Test result	Method
The first hypothesis	0/730	0/993	H_0 Confirmed	Money (compilation)

According to table 6, H0 has been confirmed and H1 has been rejected. So the data have been arranged in a consolidated way.

Results

The first hypothesis test

The type and size of audit report has impact on financial function and position of firms

H0: The type and size of audit report has not impact on financial function and position of firms

H1: The type and size of audit report has impact on financial function and position of firms

In this hypothesis, because the Fleamer test is not meaningful, least squares have been used to estimate the model. The coefficient of determination is 0.367, which means the 36.7% of the dependent variable has been expressed by then model. The independence of errors is one of the assumptions of regression. The regression is useless if the hypothesis of independence of errors is rejected and errors are correlated with each other. The Durbin-Watson Statistics has been used for testing the independence of errors. If the Durbin-Watson Statistics is 1.5-2.5, the hypothesis of the independence of errors is rejected and the regression can be used. The value of Durbin-Watson Statistics is 1.56; so the errors are independent and there is no correlation between errors. The error correlation hypothesis is rejected and regression can be used. The Fisher test error is less than 5%, so the model hypothesis has been confirmed. According to table 7, the variables have impact on stock returns because the meaningful level in t test is less than 0.05. As a result, it can be said that this hypothesis has not been confirmed and type and size of audit reports has no impact on function and financial position of firms and stock returns.

Table 7. Coefficients of the regression equation for the first hypothesis

The significance level (Prob)	t-Statistic	Standard error	Coefficient	independent variable	The dependent variable
0/270	-1/104	0/335	-0/370	Duo	CGY
0/050	-1/95	0/338	-0/661	DB	
0/365	-0/905	0/252	-0/228	ROE	
0/0032	2/96	0/924	2/74	ROA	
0/341	0/951	0/328	0/312	NM	
0/042	--2/034	0/511	-1/041	FAR	
0/804	0/247	0/448	0/111	ROE*Duo	
0/857	-0/180	1/183	-0/231	ROA*Duo	
0/540	-0/612	0/595	-0/364	NM*Duo	
0/434	0/782	0/739	0/578	FAR*Duo	
0/415	0/815	0/342	0/379	ROE*DB	
0/608	0/513	1/238	0/635	ROA*DB	
0/779	-0/280	0/751	-0/210	NM*DB	
0/156	1/418	0/872	1/237	FAR*DB	
0/028	2/202	0/203	0/449	C	
0/367			The coefficient of determination		
(0/00) 2/59			F(prob)		
1/56			Camera Watson		

The results of second hypothesis

There is a meaningful different between stock returns and the function and financial position of audited firms by the large audit firm.

H0: There is no meaningful different between stock returns and the function and financial position of audited firms by the large audit firm.

H1: There is a meaningful different between stock returns and the function and financial position of audited firms by the large audit firm.

Table 8. Described t-test for the second hypothesis

Standard deviation	Average	Number		Variables
1/069	0/357	278	Accepted	CGY
1/12	0/349	242	Conditional	
0/467	0/343	278	Accepted	ROE
0/254	0/338	242	Conditional	
0/089	0/117	278	Accepted	ROA
0/120	0/180	242	Conditional	
0/267	0/1970	278	Accepted	NM
0/213	0/2069	242	Conditional	
0/195	0/3600	278	Accepted	FAR
0/182	0/411	242	Conditional	

Table 9. T-test for the second hypothesis

The significance level	df	t	Levene's test			
			Sig.	F		
0/931	518	0/087	0/913	0/012	The variance	CGY
0/931	499	0/086			In unequal variance	
0/862	518	0/174	0/014	6/13	The variance	ROE
0/857	439	0/180			In unequal variance	
0/00	518	-6/91	0/00	28/97	The variance	ROA
0/00	438	-6/77			In unequal variance	
0/643	518	-0/464	0/137	2/21	The variance	NM
0/637	514	-0/472			In unequal variance	
0/002	518	-3/08	0/478	0/504	The variance	FAR
0/002	515	-3/09			In unequal variance	

According to aforementioned tables, return on assets (ROA) and the financial independence in companies with probation reports is larger than the firms with acceptable reports. So, it can be said that the type of report has impact on these two variables.

Table 10. Described t-test for the second hypothesis

Standard deviation	Average	Number		Variables
1/083	0/353	389	Large institutions	CGY
1/132	0/354	131	Other institutions	
0/328	0/323	389	Large institutions	ROE
0/510	0/392	131	Other institutions	
0/111	0/151	389	Large institutions	ROA
0/102	0/1334	131	Other institutions	
0/259	0/206	389	Large institutions	NM
0/188	0/188	131	Other institutions	
0/194	0/403	389	Large institutions	FAR
0/1700	0/325	131	Other institutions	

Table 11. T-test for the second hypothesis

The significance level	df	t	Levene's test			
			Sig.	F		
0/992	518	-0/010	0/904	0/014	The variance	CGY
0/992	215	-0/009			In unequal variance	
0/077	518	-1/77	0/135	2/23	The variance	ROE
0/152	167	-1/43			In unequal variance	
0/109	518	1/6	0/494	0/469	The variance	ROA
0/095	241	1/67			In unequal variance	
0/459	518	0/741	0/271	1/21	The variance	NM
0/388	306	0/865			In unequal variance	
0/00	518	4/07	0/112	2/53	The variance	FAR
0/00	252	4/35			In unequal variance	

According to aforementioned tables, the financial independency in companies which were audited by large audit firms is higher than the companies which were audited by other companies. Therefore, the type of audit firms has impact on the financial independency.

Conclusion

As it is observed, the results of the first hypothesis test shows the significant relationship between the type of the auditing firm, the return of assets and financial independence ratio with return rate. Thus the assets return are affected by these variables in such a way that the assets return cause the increase of that by large institutes and the return of assets and financial independence cause the decrease of that but in the interaction between the type of auditing and the firm, auditing is not affected by independent variables and the return of assets. Therefore it can be said that this hypothesis is not confirmed and the amount and the type of auditing report about the performance and the financial conditions of firms does not affect their asset return.

The results indicate that large auditing firms implement auditing services with higher quality on account of possessing more resources, equipment and reputation; and hence the quality of financial reporting and the prediction power of these reports will be increased and it naturally cause the increase of return. Based on the obtained results, the criteria of the quality of the auditor can be considered as a logical criterion for relying on auditing information. Hence, the returns that are predicted by famous and expert auditors using auditing information will be closer to reality. Among the above variables and the lack of the impact of comment type on the return, the phenomenon of comment selection in Iran's auditing market can be addressed. Comment selection is state in which the employer changes his auditor so that the new auditor provides his reports

according to the employer. This issue is a threatening factor in the profession of auditing. The results of this research are similar to the results of Lee (2013) and Mihaela et al in 2015.

The findings of the second hypothesis test indicate that the asset returns and financial independence ratio with conditional reports is more than the firms that have acceptable reports. Therefore, it can be said that the type of auditor's report affected these variables. Also, it can be seen in table 9.4 and 10.4 that financial independence ratio in firms that are audited by large institutes is more than the firms that are auditing by other auditing institutes. Therefore the size of auditing institute affects the financial independence ratio. So it can be deduced from the test results that the largeness of institutes will cause the promotion of auditing report quality. It can be noted from the reasons of lack of relationship between the variables that one of the most important factors in using high quality information refers to the level of knowledge and users' understanding. Although auditing services and its performance quality has increased in recent years, it has a high distance to our desirable extent and one of the reasons of this fact is that unlike the developed countries, Iran's society is not aware and sensitive to financial information and its quality and treats it just in case of legal requirements. In fact, it seems in Iran the economic role of auditing as the main incentive of demand for a high quality auditing has a low importance. The test of this hypothesis is for confirming the researches of Change in 2010 (Change et al; 2010) and Hsu in 2011 (Hsu et al; 2011).

Suggestions based on research results

1. According to the results of this research it can be predicted that auditing institutes with high reputation cause a significant increase in the quality of financial reporting. Therefore it can be proposed to the public meetings of firms to use reputable and reliable auditing institutes for firm's auditing.

2. According to the fact that there is a significant relationship between the size of auditing institute and firms' financial situation, it is offered to apply proceedings in order to increasing the number of large auditing institutes.

Suggestions for future researches

1. According to the results of this research it is suggested to future researchers to conduct the analysis of the effects of auditing features on return according to other criteria such as the auditor's profession in industry and term time.

2. Also it is suggested to analyze this research in the level of different industries.

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