Investigate the relationship between corporate standards and changes in accounting earnings

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Abstract: Accounting information systems, have been the most important tools for providing information about the financial position and performance of the business units. This study examines the relationship between firm size and the quality of earnings with earnings volatility at the listed companies in Tehran Stock Exchange. In this regard, three research hypotheses were examined. The first hypothesis stated that there is a significant relationship between the firm size and volatility of earnings. In the current study it was investigated whether earnings quality leads to lower volatility in profit or not? For this study is used data from 168 companies listed in Tehran Stock Exchange In the period from 2007 to 2011 and multiple linear regression analyzes based on the combined data. The results indicate that there is a significant and negative relationship between firm size and earnings quality variables with earnings volatility (standard deviation of profit). In addition, the findings showed that at the Tehran Stock Exchange there is no significant relationship between variations of the yield bonds and stock return with volatility of earnings variable. So that larger companies with stable earnings and earnings quality also leads to a reduction in earnings volatility.

Introduction

Accounting information systems, have been the most important tools for providing information about the financial position and performance of the business units. Therefore, the quality and method of operation of these information systems and in turn, the quality of accounting and business units, the last few years have been the concerns of scholars and the framers of the Act and Regulations. The overall objective of financial reporting is to provide information that expresses the financial effects of transactions, operations and financial events affecting the financial condition and results of profit operations, thereby investors, creditors and other users help in judgment and decision- towards. One of the principal information of financial statements is benefits that attract to investors and other users of financial statements. Information provided by companies, including income information is based on past events. However, users of financial statements need information about the company at future. Performance of Stock Exchange, causing resources lead toward economic activities that are economically justified. Among the affecting issues on the performance of the Stock Exchange are fluctuations in earnings and cash flow and price. Earnings volatility is one of the most controversial issues in the capital markets that is striking analysts, researchers, and investors are, because Earnings volatility is one of helpful resources and tools to improve profit forecast. On the other hand

the company is one of the factors affecting on corporate profitability. One of the internal and structure factors that affect the efficiency and profitability of the company's and its impact is the size of the company. Sized companies in many studies represent different aspects of the company.. On the one hand, the size of the company can representative the company's leverage also can represents a competitive advantage. Since most share of the market need to produce and sell more, therefore, having enough financial resources and larger sizes can help companies in more production and higher costs of production and marketing to create competitive advantage.

On the other hand, attention to quality of benefits are widely discussed in both the accounting profession and the Investment Management. In the field directly or indirectly references to this issue at accounting literature, financial management, investment management, guidelines and regulations of the stock exchange, stock brokerage accounts. The attention of accounting professional is reported net income, operating performance of business units that reflect fairly, Yet application of reported earnings in another Science is order to achieve other specific goals (Zareef Fard, 1999). For example, financial analysts assess earnings quality in order to Specify a level of profit and forecast the future net profit and thereby determine a company's stock price.

Usually larger companies are more concerned by analysts and investors that's why accounting process are more efficient at larger companies. Finally, the size of company can represents the overall risk of company. More financial Can reduce the company's overall risk because larger firms are exposed to more public safety, Because are known more by financial analysts. In this study.is there Significant relationship between the size of company, quality of earnings and stock return with volatility of profits of present companies at Tehran Stock Exchange or not?

Literature

Kothari et al(2005) In a study entitled "Implementation measures of performance to DA" the Jones model and revised Jones t model discovered and earnings management practices using discretionary accruals compared together.. The audited financial statements of 250 companies during the years 1962 to 1999 were examined. Their results showed that Jones amended version into the Jones model is applied and explore better to earnings management by using discretionary accruals. Also, Jones revised model illustrates the ability to infer more than earnings management.

Mouselli & et (2012) In a study entitled "The quality of accruals versus the quality of disclosure, whether they are full time or equivalent? To investigate the association between accruals quality and the quality of disclosure whether they complement the followed deviation of the time series of portfolio returns are or not. In this study for the quantification of disclosure quality was used rating scale Hosseini (2003), and also to measure the quality of accruals used the absolute modified Jones model. Their application portfolio during the years 1997 to 2004 the group concluded that there is a positive association between accruals quality and the quality of disclosure. And this suggests that firms with high disclosure quality have lower earnings management and are high quality items.. In this study the asset pricing tests show that accruals quality factor and the quality of disclosure described the deviation of excess returns time series in the same groups of their portfolios. Chang et al (2009)، the researchers suggested that the quality of accruals and disclosure quality are the same information and does not hinder movement together, reviewed the relationship between earnings management and stock liquidity. They used modified Jones model to measure earnings management. In this study for the quantification of the liquidity of the stock of liquidity was used the amount of the transaction and the transaction fee. At the concept of transaction costs used turnover criteria and in the transaction costs used price gap criteria of buying and selling. The number of 999 companies during the years 2001 to 2002 were studied. Their

results show that firms are more profitable management are lower liquidity.

Dichow (1994), in his doctoral thesis examines the role of accruals as a measure of performance. he showed in his study that accruals are more important when a large variation in working capital and funding activities, as well as when the cycle is now longer. As a result, it is predicted that the cash flow at company's forecasting are scheduling problems and mismatched and these problems cause the predictive power of cash flows reduced to reflect the company's performance. The hypothesis of this study were that the cash flows are less than the benefit of mismatch problems, Because accruals and cash flows (the cash components and earnings accrual components) will reduce these problems. The results were as follows:

A) Earnings relative to cash flows have stronger association with stock returns in short periods of time. The ability of cash flows into the profit to measure of the company's performance, improving with increase in measurement time.

B) Companies that are large variations in the components of working capital and financing activities and investing their profits and stock returns is greater than the cash flow relationship.

C) Accrual play an important role at Interest enabling to timely reflect of the company's performance.

D) Accruals and changes in cash flow have negative correlation, The findings revealed that accruals working capital plays important role in reducing the mismatch problem than the operating accruals.

Dey(2004) In a study entitled " smoothing and preference of unrealistic Investors " to investigate that are the users of accounting information and financial analysts know smoothing it with the information and whether do they distinguish between different methods of smoothing. The results indicated that the:

A) companies are guided by financial analysts (financial analysts are advising or recruiting them to participate in the making), more natural smoothing action to take profits. Also, There is a correlation between financial analysts ay company and use negative intentional smoothing.

B) Institutional and investors individual to smoothing of normal and intentional (artificial kind) indifferently but paved profits through real smoothing techniques considered exaggerated profit.

C) Expert investing in management of real earnings not a means to an information overload, but simply to consider that management opportunist.

D) Companies with financial analysts and investors institutional agencies provide smooth

Less than other companies.

Wang & Campbell(2012) In a study entitled "Corporate Governance, Earnings Management and International Financial Reporting Standards' are listed on China's data from 1329 to examine the issue of how international financial reporting standards, state ownership and board of directors of the impact of earnings management others, were reviewed. They concluded that state ownership leads to a decrease in earnings management in China. However, it did not appear that the application of international financial reporting standards will lead to a weakening of earnings management. They are also reached the conclusion when no state ownership (there are private property), increasing the number of independent board members to reduce the earnings management is a good practice.

Li & et al(2012) In a study entitled "The relationship between liquidity, corporate governance and firm value." were examined relationship between liquidity, corporate governance and firm value in the period 2002 to 2009 in Russia. In this study used three criteria deal of amihud standards and ratio of zero daily returns criteria for measuring liquidity. The results showed a positive relationship between liquidity criteria and corporate governance. Moreover, the results indicate a significant and positive relationship between corporate governance and firm value.

Mode of data collection

At this study, for the collection of required data used rahavarde novin software and financial statements companies of samples. After gathering the data from Excel and Access software summarization, coding and classification and finally by using the statistical software SPSS, STATA, will be analyzed.

Research Methodology

There are various methods for the study, each tailored to the subject and nature of research in humanities research is valuable. Use any of the methods of investigation depends into the nature of research and activities to conclude and the sense of responsibility of the researcher into the results and objectives research. This study based on objective is practical study and look for correlation between the operational variables in a sample companies handle that their data type is date (after the event), And according to the researchers do not plan to manipulate the variables to measure its effects on other variables (experimental and quasi-experimental research), the result of research is methods, cross-correlation. Let other words, this study examines the correlation and relationship between variables through regression dealt.

Research Model

Theoretical framework, and the underlying conceptual model that is based on the latest research by the researcher are important between factors in causing the research problem, communicate and produce testable hypotheses. Analytical model is a graph of the derived variables from the theoretical framework. (Khaki. 2003). According to research Han and Pugosiyan (2012) and Dutt et al (2013) in this study will be used to test hypotheses regarding the following:

$$Volatility_{it} = \alpha_0 + \alpha_1 Size_{it} + \alpha_2 EQ_{it} + \alpha_3 RB_{it} + \alpha_4 R_{it} + \alpha_5 Lev_{it} + \varepsilon_{it}$$

$Volatility_{it}$ The volatility in corporate profits

$Size_{it}$ The size of the company i Inyear t ؛

EQ_{it} The earnings quality using Dichow and Dichow models (2002) by Mc Nichols in 2002 adjusted for the year

RB_{it} including the rate of bonds return in t ؛

R_{it} including the rate of bonds i return in t ؛

Lev_{it} The company's financial leverage t ؛

ε_{it} The residual error in the year t ؛

Hypotheses

According to the research questions, hypotheses are presented as follows:

First hypothesis: There is Significant relationship between firm size and earnings volatility.

Second hypothesis: There is Significant relationship between earnings quality and earnings volatility.

Third Hypothesis: There is a significant relationship between stock returns and earnings volatility.

The research results

Out of 446 companies listed in Tehran Stock Exchange listed companies, Investment firms, banks and financial and credit institutions, is due to significant differences in the objectives and activities and therefore the differences in the composition of the assets and liabilities of these entities were excluded compared to other firms. In the second step, taking into account the conditions provided for sample selection (Chapter III) and that the scope of the study includes the five fiscal years 2007 through 2011. Companies that information relating to the financial statements for each for five or seven financial period was not available, were excluded resulting remained 168 firms of sample.

Descriptive Statistics

Descriptive statistics for those statistical methods that combine will help the researcher to classify,

summarize, describe, and interpret and communicate the information collected (2011,Delavar) One of the main advantages of using descriptive statistics is to summarize the large amounts of information. As mentioned above, used the Excel software to classify data collected from the companies of sample. By using applications this formula to calculate the variables that are described in Chapter III, is used.. To provide an overview of the main features of the measured variables in Table (1) is presented some concepts of descriptive statistics for these variables, including mean, standard deviation, minimum, maximum and number of observations.

Table (1) Descriptive statistics for variables

Statistical Indicators Variable	Observe	max	min	SD	Average
Volatility of profit	840	1.404	0.016	0.208	0.274
size	840	31.96	22.87	1.534	25.571
Quality of Earnings	840	-0.0009	-.302	0.042	0.059-
Stock returns	840	1.988	.623-	0.47	0.236
Yield Bonds	840	.2	.155	0.016	.171
Financial Leverage	840	1.364	0.013	0.22	0.608

Findings related to Dichow and Dichow models

Linked of theoretical accrual aspects associated and Cash flow, take Cash - profits and many problem of approach items of basic accounting to overcome was introduced first by **Dichow and Dichow** (2002). They estimated the remaining items of the regression of changes in net working capital and cash flows, the current period, previous period and after period for each firm separately shows errors are estimated of all of the accrual and is considered as an inverse measure of earnings quality.. Measurement model requires assumptions about basic accounting items that management does not and have a direct relation between cash flow and accruals of the current period. But do not differentiate between errors have been estimated to manipulate and intentional earnings management.

As stated in Chapter III, to estimate the quality of earnings is used the following model:

$$\Delta WCA_{it} = \beta_0 + \beta_1 Cfoi_{t-1} + \beta_2 Cfo_{it} + \beta_3 Cfo_{it+1} + \beta_4 \Delta \operatorname{Re} venues_{it} + \beta_5 PPE_{it} + \varepsilon_{it}$$

for the analysis of research models is used the combined data set. Thus, many companies over time are examined and analyzed. For a combination of data first you should to choose between integration and panel using is used Limer F test; Reject the null hypothesis indicates significant fixed effects and using the panel. When the panel was selected, the next step is to decide on the Hausman test for using fixed or random effects is allocated. If the Hausman test dose not reject the null hypothesis, the random effects method is preferred to fixed effects method.

According to Table (2), F statistic to compute equal to 87/0 and the significance level equal to 89/0 (05/0 <p), That the calculated F Limer is not to reject the null hypothesis suggests and shoed significant marker of Fusion Method is a in front of a painting. Therefore, to estimate the equation of interest, consolidated data model accepted inserted.

Table (2), the results of these tests are used to for **Dichow and Dichow** models

Results	Probability	The test statistic	Statistical indices and thus Type of test
Fusion Method	.89	.87	F-limer

The basic assumptions of regression is lack of correlation between the error terms. Table (3) shows test results of Watson's Dorbin to detect the presence or absence of autocorrelation. The outputs of Watson and Dorbin test indicates that the model is estimated using a regression-based fusion method, there is no problem.

Table (3) self-correlation test for **Dichow and Dichow** models

Results	The test statistic	Statistical indices and thus Type of test
No problem autocorrelation	1.86	Dorbin-watson

One of the basic assumptions of linear regression is variance homogeneity of error terms (left) which was used in the study in order to test White. Table (4) shows White's test results to identify the presence or absence of variance anisotropy model and **Dichow and Dichow** models, White's test statistic is equal to 38/13 and a 89 percent chance that a 5% error level is high and indicates that the null hypothesis of homogeneity of variance cannot be rejected. The model is the lack of variance anisotropy problem.

Table (4), the test for the variance anisotropy for **Dichow and Dichow** models

Results	Probability	The test statistic	Statistical indices and thus / Type of test
The lack of variance anisotropy	.89	13.38	wait

Another multiple regression assumptions underlying the explanatory variables are not correlated with each other. In most cases, the relationship between the explanatory variables will be non-zero, But often a small degree of correlation between the explanatory variables in the model will not be significantly reduced. But when the correlation between the explanatory variables is very large (typically greater than 5.0) can cause a problem called multicollinearity. One of the most common statistical tests to identify the presence or absence of the linear problem is using the VIF TEST. The test results for the model in Table (5) has been proposed.

Table (5), the result of VIF test for **Dichow and Dichow** models

1/VIF	VIF	variable
.73	1.37	$Cfoi_{t-1}$
.74	1.35	Cfo_{it}
.76	1.31	Cfo_{it+1}
.98	1.02	$\Delta \mathrm{Re}\,venues_{it}$
.96	1.03	PPE_{it}

VIF value is less than 10 for all variables, this value indicates that the model fitted to **Dichow and Dichow** models is no linear problem. In order to determine the normal distribution of the error components (remaining), plot (5) has been proposed. Shape, mean and standard deviation of the distribution is normal.
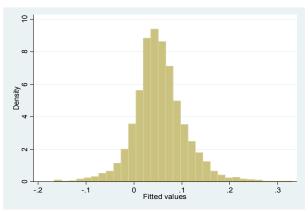

Figure (1) the normal histogram of remained in **Dichow and Dichow** models

Test to check the normality of the error components used Shapiro and Wilkie test. The test results for this model is presented in Table (6).

Table (6), test result of the normal error components

Results	Probability	The test statistic	Statistical indices and thus / Type of test
Normality of the error components	.61	.23	Shapiro and Wilkie

output of Shapiro and Wilkie tests indicate that reject the null hypothesis of normality of the distribution of error components and this implies that the error components model fitted normal. Therefore, the results of the model, without the problem of autocorrelation is presented in Table (7).

Draw conclusions of regression models based on **Dichow and Dichow** models at the table (7) are as follows:

Adjusted coefficient of determination () indicates that the explanatory variables explain about 9% of the variability. of operating cash flow variables equal to 0.000 that these values were lower than 5% and suggests that these variables have a significant relationship with the dependent variable. The Probability of income and tangible fixed assets is less than 5% and the value suggests that the dependent variable have a significant relationship with these variables.

The present research hypotheses will be analysis by using data collected from a sample companies and multivariate linear regression and will be viewed based on statistical principles and with respect to the parameters of assumptions.

Table (7), linear regression analysis model based **Dichow and Dichow** models

prob	F	Adjusted coefficient of determination	prob	t		Variable coefficients
			0	0.032	0.14	$Cfoi_{t-1}$
			0	0.031	0.28	Cfo_{it}
0	17	0.09	0	0.03	.1	Cfo_{it+1}
			0	0.019	0.2	$\Delta \mathrm{Re}\,venues_{it}$
			0.011	0.02	00.05/0	PPE_{it}

According to Table (8), computational statistics of F is equal to 39/7 and the probability is 000/0 (05/0> p), in other words, the calculated F Limer reject the null hypothesis suggests that a significant marker of a panel in front of fusion. On the other hand, the Hausman test indicates that the null hypothesis is not rejected based on the performance of random effects and random effects model is more efficient. Thus, the regression model is used the random-effects approach based board.

Table (8), the results of these tests were used for the study

Results	Probability	The test statistic	Statistical indices and thus Type of test
Materials Panel	0	7.39	F-limer
Performance of the random effects	0.328	5.78	husman

One of the basic assumptions of linear regression is independence of error terms (left) which was used in the study in order to test Voldrig. As seen in the above table, the Voldrig test statistic is equal to 58/172 and its probability of 0.000%, which is lower than 5% error level and implies that the null hypothesis can be rejected based on the independence of errors.. The research model is the autocorrelation problem.

Table (9-4), autocorrelation test for the study

Results	Probability	The test statistic	Statistical indices and thus Type of test
Autocorrelation problem	0	172.588	vorldrig

Considering that one of the ways to eliminate autocorrelation, using the model AR (1), the model can be fitted using this method.

Table (10), the results of research

$$Volatility_{it} = \alpha_0 + \alpha_1 Size_{it} + \alpha_2 EQ_{it} + \alpha_3 RB_{it} + \alpha_4 R_{it} + \alpha_5 Lev_{it} + \varepsilon_{it}$$

prob	T	Standard error	The coefficient estimates	Statistical Indicators Variable
.02	-2.33	.0059	-.013	$Size$
.008	-2.63	.059	-.025	EQ
.47	.71	.009	.006	R
.59	.54	.221	.119	RB
.001	3.24	.028	.093	Lev
.001	3.41	.161	.551	E
F: 24.16 (000/0)			(R^2): 11/0	

The results of testing research hypotheses

Results presented in Table (11), suggests that there is a significant and a negative relationship between firm size and earnings volatility, so that larger companies with stable earnings. In addition, the findings showed that earnings quality leads to lower volatility in earnings. The findings also showed that at the Tehran Stock Exchange there is no significant relationship between variables yielding bonds and stock returns with earnings volatility,. Summary results of the study for research hypotheses can be seen in the table below.

Table 11: The results of the study for research hypotheses

Results	The coefficient estimate	Type of variable	Variable
There was a significant negative correlation	-.013	The Independent	*Size*
There was a significant negative correlation	-.25	The Independent	*EQ*
The lack of a significant relationship	.006	The Independent	*R*

It should be noted that Han and Pugosan (2012) found relationship between firm size and the quality of earnings and earnings volatility of variables.

Limitations

Always step on the road to achieving the goal, coupled with the limitations that cause sluggishness associated with achieving the desired goal.. Research as a process in order to achieve the objective of problem-solving of the research is not exempt from this. This study, like other domestic empirical research done in the field of accounting have limitations.

In this regard, it is noteworthy limitations of this study are as follows:

Other variables may influence the earnings volatility that is not considered in the current study.

- variables are not possible On an inflation-adjusted if the variables are adjusted for inflation, reached different conclusions.

Suggestions

In this section, based on the results and findings of the study suggest two classes. First, the practical suggestions is hoped that assist in decision making users of accounting and financial information especially to investors. Second, suggestions for future research that can guide future research on the subject.

Recommendations based on research results

A. Given that an increase in earnings quality leads to lower earnings volatility, it is recommended to regulators and policy makers, In order to enhance the quality of financial reporting (earnings quality) try to help to use it to make better business decisions by investors and analysts.

B. investors and financial analysts who seek to maximize their wealth will take a proper decision a better understanding of the Tehran Stock Exchange and the effect of financial reporting quality (quality gains) and other studied variables (firm size, return on equity, etc.) are corporate earnings volatility in the market.

C. to investors and financial analysts suggest that firm size as a measure that could indicate a company's earnings volatility, take a look and decide on the optimal decisions.

Reference
1. Azar, A, Momeni, M. (2005). "Statistics and Its Applications in Management", Volume 2, Tehran, SAMT.
2. Chung, H., Her-Jiun, S., & Juo-Lien,W. (2009). "Do firms' Earnings Management Practices affect their Equity Liquidity?" Financial Research Letters, 6, 152-158.
3. Dechow, P (1994). "Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals", Journal of accounting & economic, Vol 18(1), 3-42.
4. Dechow, P., Dichow, I., (2002). "The Quality of Accruals and Earnings Management: the role of Accruals Estimation errors". The Accounting Review, 77, 35–59.
5. Dey, A. (2004). "Income Smoothing and Sophisticated Investor Preferences". Electronic copy of this paper is available at: http://poseidon01.ssrn.com/delivery.
6. Duke, J.C and Hunt, H.G.(1990), An Emprical Examination of Debt Resrtriction and Accounting Realated Debt Proxies. Journal of Accounting and Economics, 45-63.
7. Iatrids, G., & George, K. (2009). "Earnings management and firm financial motives".

International Journal of Managerial Finance, 18, 164-173.

8. Li, W., Chen, C., French, J. (2012). "The relationship between liquidity, corporate governance, andfirm valuation: Evidence from Russia". Emerging Markets Review 13, 465–477.

9. Myers, J.N., Myers, L.A., Omer, T.C.(2003). Exploring the term of the auditor–client relationship and the quality of earnings: a case for mandatory auditor rotation? The Accounting Review 78, 779–799.

10. Khaki, GH (2003), research methods and approach to thesis writing, Tehran, reflection.

11. Kothari, S. P., A. J. Leone, and C. Wasley. (2005). Performance matched discretionary accrual measures. Journal of Accounting and Economics 39 (1): 163-197.

12. Wang, Y., Campbell, M. (2012). "Corporate governance, earnings management, and IFRS: Empirical evidence from Chinese domestically listed companies". Advances in Accounting, incorporating Advances in International Accounting, 28, 189-192.

13. Zarif Fard, A. (1999), "Identification and analysis of factors related to quality assessment of business profits", PhD Thesis, Tehran University.

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