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The effect of mandatory implementation of accounting standards on earnings quality

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Abstract

The existence of transparent and comparable financial information is the most fundamental principle in responding and conscious economic decision makings and it is one of the necessities of economic growth and development in both private and public sector. In the present research we have discussed this issue to measure the feedback of administering accounting standards in Iran about market information issues. Regarding the broadness of the discussion in the field and also lack of controllability of the interfering variables, earnings as one of the most common criteria were taken into consideration. Earning is one of the most basic elements in financial statements and it is considered as a criterion for measuring activity continuance, efficiency and etc. Thus, the quality of this item is a basis for measuring the effectiveness of administering accounting standards before and after applying standards as a necessity. Since there are several criteria about measuring the quality of earnings and due to the innovativeness of the research, in the present research the quality of earnings based on time series is taken into consideration. The research results showed that the obligations imposed to apply accounting standards affected the predictability and fluctuations of earnings.

Keywords: Accounting standards, earnings quality, stable income, earnings projections, earnings variability.

Introduction

Regarding the emphasis by financial accounting standards bureau (FASB) on the usefulness of decisions, it is believed that earnings quality and the quality of financial reporting on the whole is considered by those who use these reports in their transaction goals and decision makings about investments. Additionally, the devisers of standards notice the quality of financial reporting as an index for assessing the quality of financial reporting standards indirectly. The concept of earning quality does not have a fixed definition and it is a relative concept which is related to the perspectives and outlooks. Making decisions based on insufficient earnings or low earnings will result in undesirable transferring of wealth. Regarding investment perspective low earnings means an undesirable quality because it will follow with incorrect appropriation and will lead to a reduction of economic growth. Due to the fact above, the importance and the necessity of high quality standards to make reporting more qualified especially preparing high quality reports in economic units is highly important. The question we can pose is that whether the obligations to necessitate applying accounting standards in Iran have helped to increase the quality of the earnings published or not? In the present research we have tried to study the quality of earnings published before and after the obligations about the accounting standards and find answers for this question.

Standards in Developing Countries

One of the characteristics of developing countries is that their accounting systems are relatively inappropriate and unreliable, the organizations for devising standards are relatively newly established and they have some problems such as devising theories and academic researches about economic, social, political ad institutional issues which are con-

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sidered as obstacles in devising effective standards. Although such obstacles always exist in these countries, the presentation of main accounting systems and approaches and the process of devising standards has been accelerated and the reason for it is the increasing professional organizations, books about devising standards and academic accounting associations and also the increase of the membership of these groups in international organizations of devising the standards. In these countries the process of devising standards is a unique strategy and its framework is not observed. Based on the recent assessments of standard devising systems, each standard should be assessed to measure whether it affects the quality of revealing or not; is it based on income statement or balance sheet; includes clear phrases; includes administrative guidelines or has authorized exceptions. This quality has different effects on information quality criteria. Increasing reveal reinforces information environment which results in improving accounting quality. In the same way, the reduction of clear phrases should limit the structure of transactions which results in directionality and biased reporting. The balance sheet approach improves the fair presentation of balance sheet and the existence of exceptions and alternative items will decrease comparability.

The impact of accounting standards on financial reporting quality

The goal and position of standards in improving reporting is an undeniable fact. Standards are needed to cooperate and resolve the problem of different interests and outlooks about financial reporting for accounting. Torenton believes that the quality of financial reporting is the result of four main factors: creativity and outlooks of management, auditing quality, the experience of auditing committee, and high quality accounting standards. The theoretical concepts and reporting frameworks can never resolve certain issues related to measuring or revealing. Therefore the existence of a set of accounting standards will be a reliable point to resolve some of accounting problems. Standards affect the processing of some financial statements and practically show the performance and financial flexibility of the reporting unit and in fact it is these standards which have the responsibility of counseling with management and auditing them about the resources they have access to and make the reports more transparent.

Relation of accounting standards with earnings quality

Linzmir & et al stated that a high quality accounting standard improves the ability of users in investment and credit decision makings through financial reporting. According to several resources, earning quality is affected by accounting methods. Earning calculated based on conservative accounting methods will have a higher quality compared to the earning based on non-conservative accounting methods. Many users of financial statements believe that accounting methods utilized should be applied conservatively to have a trend favoring cash flows. Regarding accounting methods we can claim that earning in the form of theoretical frameworks showing reporting goals has quality. Also those standards will have quality that can prepare an obligation for high quality earning revealing regarding the theoretical frameworks of financial reporting. According to the concept of usefulness in decision making, earning quality and more generally the quality of financial reporting is favored by those who use financial reports for investing decisions and having different contracts. In addition, we can claim that regarding the perspective of standard devisers, the quality of financial reports indirectly shows the quality of financial reporting standards.

Importance of evaluating earnings quality

The earnings reported and the relations gained are usually utilized in salary and reward contracts, loan contracts, investors' decision makings, and governments and so on. Making decisions about the items above and based on low earning quality will result in unwanted transfer of the wealth. Regarding the items above the study of the quality of the reported earnings has always been considered by the researchers and the users of financial statements. The criteria of assessing the quality of earnings can be summarized into four groups as follows: 1- time series of earnings qualities, 2- the relationship between earnings, delayed payments and cash, 3- qualitative characteristics of the theoretical framework of financial accounting standards bureau of the United States, 4- effectiveness in decisions. In the present research the effects of the obligation of accounting standards has been measured by studying the time series of earnings on the quality of the reported earning. Below, the variables tested to assess the quality of accounting earnings will be described.

1-Earning Consistency: the continuance of repeatability will result in future realizations. This structure means the earnings supported and have the capability of being supported. In other words, the earning which is not changeable is high quality earning. The researchers have considered the slope coefficient of the changing stock return regression and earnings levels as the amount and size for consistency. Consistency is one of the concepts of earning quality regarding the perspective of usefulness for decision making. There is a positive conceptual and practical relationship between consistency of earnings and return. Consistency is a function of accounting standards and business model of operational environment of the reporting unit.

2- Predictability: the article number (2) of American accounting standards bureau has referred to predictability. Predictability is a feature which is correct for the total set of financial statements and it includes earning elements and other numbers derived from earnings. Therefore, predictability is related with decision usefulness feature. Anyway, many researchers consider predictability as the ability of past earnings to predict future earnings. Thus, predictability is related with the reduction of earning changes. While both consistency and predictability have been completely defined statistically, both need to be defined regarding specific other characteristics to be operationalized. For example the difference between the idea that earning is a predictor in itself or it is an entry into a prediction process poses a question about the role of non-earning information. To what extent we can logically do predictability through the assessment of the elements reported except for the numbers related to earning? Does earning quality enhance by obliging to report earning compositions and isolated information (for example the earning of parts). In this case should we estimate earning quality through earning amount and its parts. If we consider that for short-term periods the predictability of earning or the ability of some substructures of earning such as operational earning for self prediction may increase more during the periods through which management tries to smooth the earning compared to those periods in which there was not earning smoothening and time predictability assessment becomes more complicated in this situation.

3- Changeability of earning: changeability is an approach to assess quality because there are evidences which show that earning is intrinsically smooth. The business model and reporting environment are not very changeable during a specified time period. The changeability of deviations measures time series of earning directly.

Background research

Sami & Zho studied the developing market of China and the bourse in this country. The investigated about the effects of administering new accounting and auditing standards on the exchange amounts of stocks, the fluctuations of stock price, the quality of the earnings of financial reports of companies and the simultaneous stock price. This research showed that by administering accounting and auditing standards in short-term (one fiscal year) the amount of exchanges and the fluctuations of stock prices increased and decreased, respectively. During long-term (3 fiscal years) the quality of earning increased regarding earning management and time series, but the simultaneousness of stock price decreased. These results showed an improvement in information environment following the revealing. Lo studied the effects of administering the standards related to gas and oil on information environment and the market. This research was related to financial accounting standard number 19. Also whether the prices of bonds of gas and oil companies are affected by these standards or not. The results showed the reaction of market towards an incident. The results showed that the stocks of companies are affected by standardization which shows the economic outcomes of utilizing accounting methods (new standards). Kolbek & Warfield (2005) measured the relationship between accepted accounting standards and bourse regulations in the United States with the quality of accounting and he quality of presented accruals in financial reports. In this research the dependent variables under investigation were as follows: faithful expression, completeness, predictability of financial statement, comparability, appropriate reveling, and being in time. The results showed positive effects of standard on theoretical framework indexes to be useful and reliable. Verajlal showed that accounting standards have broad importance in micro-levels and as the revealing factor result in the maximization of stockholders' wealth and in macro-levels they present decisions about effective economic performance in appropriating the resources and investment. Also in this research accounting standards were compared with managerial approaches and it was shown that although the priority basis was observed regarding the strategies of managers, this performance was not considered to be an appropriate method in long-term to alter accounting standards. Christian Hoop selected a sample of 22 countries to study the relationship between analysts earning predictability and annual revealing level of the reports and the predictability and administration degree of accounting standards. The results showed that there is a positive relationship between revealing level and analysts' predictability power in these countries. Also the precision of predictability with the administration amount of accounting standards showed a correlation of %67. Hong (2008) studied standards based on payment principles. The results of his dissertation showed that standards based on fundamentals have higher accounting qualities than standards based on regulations.

Methodology

Research and sampling methods

The main research hypothesis was to approve: "the obliging to administer accounting standards on earning quality". The minor hypotheses have investigated the effects of the obligation of administering accounting standards on predictability of earning, earning consistency, and earning fluctuations. Our statistical sample entailed companies having the following characteristics: 1- Companies accepted in Tehran Stock Exchange since 1993 and be active until 2005. 2- The companies should not be among investing companies or financial intermediaries (due to lack of preparing the budget and lack of earning prediction). 3- The fiscal year of the companies should end at the end of Esfand (21st. March). And 4- The companies should have financial budget (earning prediction). According to the characteristics and based on table 1 the sample for investigations was chosen.

Table 1. The limitation in sample selection.

The number of companies accepted in Tehran Stock Exchange since 1993 and active until 2005	117
The companies whose financial statements ended at the end of Esfand.	91
The number of companies which supplied budget.	83
The companies whose financial statements did not end at the end of Esfand.	37
The number of companies which did not supply budget.	46
The number of companies whose financial statements end at the end of Esfand and those companies which supply the budget.	51

Period of research

The present research was carried out during a 12 years period. By obliging the standards' application since the beginning of the year 1999 for a period of 6 years, the effects of administering these standards on earning quality were compared with the earning quality of the years before 1999 through which American standards were utilized broadly.

Definition of variables

A) The Independent Variable: the accounting standards in Iran were posed as the independent variables. By administering national standards since 1999, the effects of these standards on the quality of the earnings reported were investigated.

B) The Dependent Variables:

Earning prediction: according to the information got from the financial reports and the predicted earnings in the budget of the year under investigation, the average difference between the earnings predicted and the real earnings, regarding the meaningfulness level with t-test (the equality of the averages of the two societies) were investigated.

Earning power (repeatability): in this research and regarding that the researchers have considered the correlation coefficient of the earnings of a company as the amount and size of consistency, the correlation coefficient of the earnings during the time series were considered as the consistency degree of the earnings.

Earning fluctuation (changeability): the trend of series earnings of the company with low changeability shows the capability of earning in repeatability and its capability in reliability for earnings predictions for the future years. The disturbing variables in measuring earning fluctuation are inflation and smoothening which should be investigated for fluctuation test meaningfulness. Regarding the research results carried out in Tehran Stock Exchange, there was not any meaningful relationship between earnings fluctuation and smoothening. Earning fluctuations were tested by earnings dispersion compared to the average earnings during the recent years, in the two time periods of before and after the administration of accounting standards.

Results

In first hypothesis the average difference between real earning compared to the earning predicted for the years before and after the obliging of the use of standards by the paired-samples t-test in an assurance level &95 were investigated.

In first hypothesis, we express lack of effectiveness by presupposing H0: $\mu 2 = \mu 1$. In fact $\mu 1 - \mu 2 = 0$. This means that by obliging accounting standards there would not be a meaningful difference between the average of real earning and the predicted earning. The test result of this hypothesis (table 2) shows that the presupposition H0 is not accepted with maximum assurance level of 1-0.003=0.997.

Table 2. Studying the effect of the obligation of standards on earnings predictability.

(P-Value)	T	The correlation coefficient	Standard deviation	average of difference between the actual Income and forecast Income	n	The effect of Mandatory implement
0.003	07.3	0.829	14437.47	7786.99	51	Before the run of accounting standards Year(1993-1998)
			36740.56	19020.95	51	after the run of accounting standards Year(1999-2004)

Now another question arises that has standards administration improved earning prediction? Regarding the average difference between real earning and the predicted earning (before the obligation of standards 7786.99 and after it 19020.95) the earning predictability power by management has decreased for the years after the obligation of standards by management. Regarding the results of the research by Saghafi & Ebrahimi done in 2009 it was pointed out that the administration of national standards was along with surplus consistence and this improvement can result in better predictions. The results gained from the effects of administering standards have shown the opposite of what was for prediction power before. In testing the second hypothesis for the individual companies of our sample the earning trend line for the years before and after the administration of standards we have used earning power to calculate correlation coefficient and the results are as shown in table 3.

As it can be observed in some of our sample groups correlation coefficient of the earning series are very close to each other or equal to each other and this shows that accounting standards didn't have any effects. To study the effects of standards on earning consistency in companies we have used meaningfulness test of numbers and the results are shown in table 4.

In the assurance level of %95 the presupposition of the effects of administering standards for earning consistency is rejected. This means that the meaningfulness difference between the consistencies of earnings before administering with the earnings reported after the administration of standards was not observed. Of course, the lack of acceptance of this presupposition has been done by at most 0.075 of assurance which is considerable. Also the average earning consistency before obliging accounting standards was 0.6444 and 0.5395 after that which shows the trivial changes in earning consistency. The results of this research about the earning consistency contradict with those results of Saghafi & Ebrahimi in the year 2008 and it accords with the research done by Kolbek and Warfield in the year 2005. Also these researchers tested all standards in the year 2008 and didn't observe any meaningful difference between the consistency before and after administering the standards.

Table 3. Earning consistency by using correlation coefficient.

The correlation coefficient after the run of accounting standards Year(1999-2004)	The correlation coefficientBefore the run of accounting standards Year(1993-1998)	
0.51	0.92	paksan
0.09	0.97	kaf
0.92	0.66	Pars pamchal
0.992	0.992	behran
0.963	0.979	Naft pars
0.33	0.50	Shimi rangin
0.95	0.80	Kosar daru
0.91	0.96	Daru pakhsh
0.82	0.89	absal
0.88	0.99	Pars minu
0.71	0.87	Shahd iran
0.04	0.58	Gand nagsh jahan
0.78	0.27	Rogan pars
0.14	0.58	Vitana
0.92	0.95	Baste bandi iran
0.39	0.57	Karton mashad
0.79	0.94	Iran merinus
0.77	0.76	Makhmal kashan
0.01	0.87	Yazd baf
0.02	0.96	Nasaji brujerd
0.23	0.45	Iran puplin
0.91	0.66	Karbon iran
0.61	0.99	pelastiran
0.17	0.34	Pelastic shahin
0.93	0.96	Pars electric
0.77	0.88	Tolidi bahman
0.43	0.22	Sanati jeneral
0.91	0.88	Iran pouya
0.78	0.88	Pashm shishe iran
0.84	0.71	Pars seram
0.27	0.97	Chini iran
0.96	0.75	Tamin mase
0.61	0.76	Kasha esfehan
0.47	0.97	Shishe gazvin
0.92	0.92	Sanati ama
0.59	0.96	Navard aluminium
0.20	0.31	Sanaye felezi iran
0.68	0.11	suliran
0.82	0.94	sepanta
0.84	0.95	alumtak
0.38	0.44	Gataat fuladi
0.95	0.68	Saman sufiyan
0.93	0.74	Saman kerman
0.99	0.86	Saman shomal
0.93	0.82	Saman tehran
0.97	0.48	Iran gach
0.69	0.85	iranit
0.92	0.96	Iran khodro
0.94	0.96	Lent tormoz iran
0.52	0.99	motozhen
0.95	0.78	Iran transfo

Table 4. Studying the effect of obliging standards for earning consistency.

(P-Value)	T	Average of stable income	n	The effect of Mandatory implement
0.057	1.94	0.64	51	Before the run of accounting standards Year(1993-1998)
		0.54	51	After the run of accounting standards Year(1999-2004)

Table 5. Studying the effect of obliging standards over earning fluctuations.

(P-Value)	F	Bound	Average of Distribution of Income	n	The effect of Mandatory implement
0.000	23.44	-94719.5	27268.75	306	Before the run of accounting standards Year(1993-1998)
		-24935.1	8796.01	306	After the run of accounting standards Year(1999-2004)

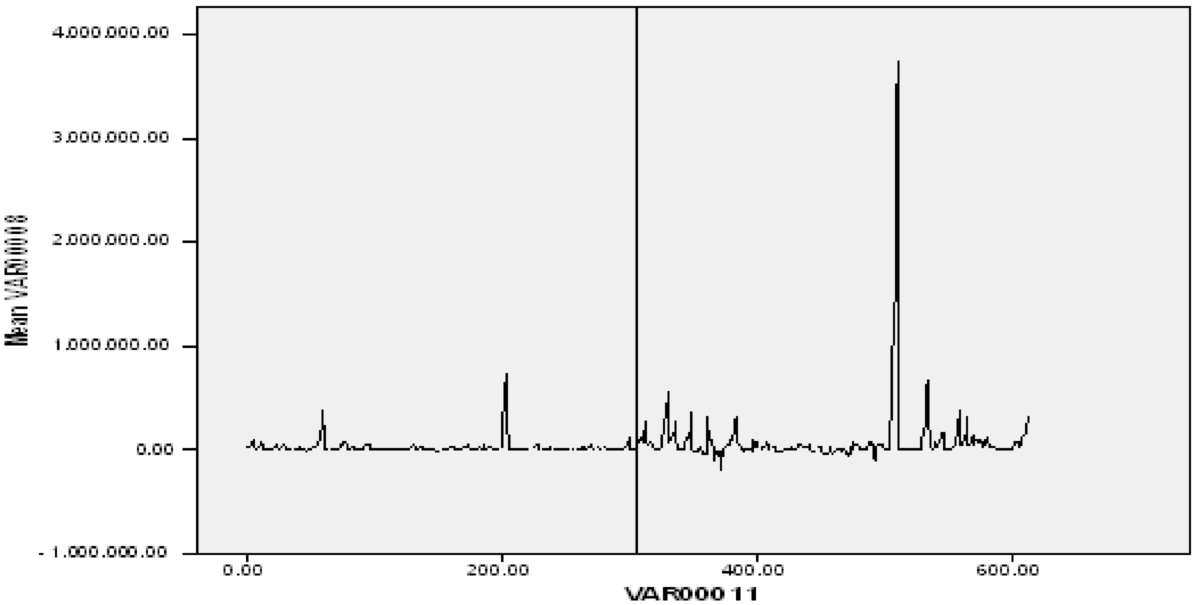

Figure 1. Fluctuation of corporate profits in 12 years.

To study the series fluctuation of earnings in companies before and after the administration of standards we have used Fisher's tests. Regarding table 5, we can say with more than %99 assurance that the obliging of accounting standards affects earning fluctuations of the companies. Now there is another question: has the company earning increased (decreased) by administering series fluctuation standards? To answer this question we can refer to the table of time series before and after the administration of standards (table 1) which shows the increase of series fluctuation of earnings during the second six years. The average earning dispersion before administering standards was calculated to be 27268.75 and it was 87096.01 after administration and this shows that earning fluctuations have increased after standards administration. According to Fisher's test if high bank and low bank are both smaller than 1 in the expected level we can claim that the variance (fluctuation) of the first society would be more than the second society's variance (fluctuation). The type of calculating would be as follows:

$$P\left[\frac{\frac{S_1^2}{S_2^2}}{F_{\frac{\alpha}{2},d.f_1,d.f_2}} \le \frac{\sigma_1^2}{\sigma_2^2} \le \frac{S_1^2}{S_2^2}\cdot F_{\frac{\alpha}{2},d.f_1,d.f_2}\right] = 1-\alpha$$

According to table 5 both banks are negative which emphasizes that earning fluctuations have increased after administering standards.

Conclusions

The results of testing the research hypotheses showed that accounting standards of Iran affected earnings quality regarding time series. These effects were assessed regarding predictability, consistency and fluctuations of earnings. These effects showed lack of success for administering national standards. The results of this research correspond with the research carried out by Saghafi & Ebrahimi where it was shown that there was not a meaningful relationship between national accounting standards and the improvement of the quality of accounting information. The present research aimed to challenge the designing of accounting standards in Iran but it followed the effects of obliging them on earnings quality. Without any doubt, there is a great distance between the devising of standards and the realization of their administration effects. By reviewing the committee of devising accounting standards we can find out that there is a big gap between the ideas of the genius Iranian accountants' assembly and the devising committee. These differences in ideas are very clear during the first years of administering the standards in tough speeches and responses between these two groups. Generally we can conclude that the weakness of the rules devised result from the two main factors: 1- lack of firmness of the rules devised 2- lack of appropriate administration of it. Also regarding the accounting standards in Iran these two items are correct to some extent. Some standards did not have the needed firmness to present fixed regulations (for example standards number 15). Also the obligation of administering the standards devised did not have any guarantees to be applied (for example lack of administering standard number 22 by most companies). Regarding the descriptions above it is suggested that first an approach to create more cooperation in the profession (the genius accountants of Iran assembly) and the committee to devise accounting standards and auditing in order to devise national standards should be predicted. Second, the doubtful standards should be discussed and new standards should be devised regarding the cultural structure and the needs of our country (such as inflation standard) should be modified. And third the auditing standards should converge with accounting standards to oblige financial managers and auditors to observe and control the devised standards.

Limitations of research

The basis of every research is the information which is used to test research hypotheses. Regarding the limitations mentioned above in selecting the sample, the generalization of the results to total society would be our main discussion topic. Therefore, the most important limitation in the present research was lack of access to financial information and lack of preparing earning predictions for the companies (especially for the first years). Also some companies voluntarily used the guidelines published by auditing organization during the years 1999 and 2000 and the isolation of these companies from others which did not observe the standards in Iran was a difficult task.

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