THE IMPACT OF ACCOUNTING STANDARDS ON EARNINGS PERSISTENCE; EVIDENCE FROM IRAN

Hassan Zohdi[1], Mohammad Reza Shourvarzi[2], Marziyeh Mehrtash[3]
[1]*Master of Accounting, Islamic Azad University, Neyshabur Branch, Iran,*
[2] *Assistant Professor, Department of Accounting, Islamic Azad University, Neyshabur branch, Iran*
[3]*Master of Accounting, Islamic Azad University, Neyshabur Branch, Iran*

Abstract
In this research, we evaluated earnings persistence based on the accounting standards. Therefore, two time intervals were considered, a 5-year period (1996-2000) before the execution of accounting standards and a 5-year period (2001-2005) after the execution of accounting standards. To extract the necessary data, audited financial statements and existing software packages such as DENA SAHM and comprehensive stock exchange software packages were used. Research results show that accounting standards can affect earnings persistence.

Keywords: Profit Quality, Earnings Persistence, Accounting Standards

Introduction

Consecutive developments and rapid improvements occurring in the fields of activity and different types of economic units have intensified the necessity of preparation and supply of relevant and reliable information by economic units. One fundamental prerequisite for the confidence of investors and creditors in the direction of productive economic activities and ultimately economic development is to provide information that may be useful in making financial, economic and business decisions.

On the other hand, the net profit reported by business units which is one of the items and elements of financial statements is used in several methods of performance evaluation and value determination of a company. For this reason, a better image of financial condition of unit performance will be achieved if financial reporting system can provide the quantitative and qualitative information required by financial analysts and other users of financial statements for evaluating the profit quality. One method for measuring profit quality is earnings persistence. Considering the fact that observance of accounting standards based on the previous studies can help in earnings persistence and quality, this question is raised that if observance of those standards in Iran can lead to the same result as well. In this research, we examine that if earnings persistence is influenced by the accounting standards.

Research Literature

In the study made by Chani et al. (2002) titled "A New Model for Public Financial Reporting", he provided some models for evaluating the financial condition of public organizations. He also believed that there were several indexes for evaluating financial condition that can be used in the public sector. According to Chani et al., the only prerequisite for using those indexes is the

availability of comparable information provided through the same methods. This may only be done through matching the accounting methods. One of the most efficient ways is to codify accounting standards.

Holtasen (2003) investigated and compared the quality of financial reports and accounting standards which are the basics for preparing financial statements. He then came to the conclusion that besides accounting standards, different motivations as well as influence of other organized elements will also affect the outputs of any accounting system and financial statement. Therefore, codification of accounting standards could not be considered as the only solution to improve the quality of financial statements in any economic sector.

In a study made by Wallas (2004) titled "Investigating the Role of International Board of Accounting Standards in Coordinating the Accounting and Auditing Standards of Public Sector And the Differences of These Standards with Accounting Procedures of Different Countries", he came to the conclusion that one might hope to witness in the future the coordination of accounting and auditing standards of public sector in most countries and even equalization of accounting procedures among economic and public sectors. The point that will hinder the achievement of this goal in a short term is the difference on financial tools in economic sectors and different countries.

Domestic Studies

In his paper titled "The Responsibility to Codify Accounting Standards; Government or Public Sector", Bozorg Asl (2003) evaluated the necessity of accounting regulations and experiences of developed and developing countries. He then considered two options for codifying accounting standards, government and public sector.

In the study made by Kordestani (2004) titled "The Relation between Profit Quality and Market Reaction", he dealt with cash and unexpected profit changes in the companies of Tehran stock exchange market and evaluated profit quality based on earnings persistence, profit forecast capability and the relation of profit and operational cash flow using regression models. He showed that:

1. Considering profit quality based on the earnings persistence, profit forecast capability and the relation between operational cash flow and profit elements, there was no significant relation between profit quality and market reaction to cash profit.
2. Considering profit quality based on the profit forecast capability, the relation between operational cash flow and profit and the relation between operational cash flow and profit elements, there is no significant relation between profit quality and market reaction to profit increase.
3. Considering profit quality based on the earnings persistence, profit forecast capability and the relation between operational cash flow and profit elements, there is no significant relation between profit quality and market reaction to cash profit.
4. Considering profit quality based on the earnings persistence, profit forecast capability, the relation between operational cash flow and profit and the relation between operational cash flow and profit elements, there is no significant relation between profit quality and market reaction to unexpected profit changes.

In a study made by Noravesh et al. titled "Investigating the Relation of Undertaken Items Estimation Error and the Quality of Undertaken Items and Profit Quality (Earnings Persistence", he concluded that there was a positive relation between the quality of undertaken items and profit quality. In another study made by Shourvarzi et al. (2008) titled "Stability of Profit Cash Elements", he came to the conclusion that the division of cash profit was the promising of stability or profit continuation in the next years.

Research Background

Some of the researchers (Lipe, 1990) consider forecast capability specifically as the capability of previous profits to forecast future profits. Therefore, such forecast capability is related to the decrease of profit change deviations.

In the study made by Chani et al. (2002) titled "A New Model for Public Financial Reporting", he provided some models for evaluating the financial condition of public organizations. He also believed that there were several indexes for evaluating financial condition that can be used in the public sector. According to Chani et al., the only prerequisite for using those indexes is the availability of comparable information provided through the same methods. This may only be done through matching the accounting methods. One of the most efficient ways is to codify accounting standards.

High quality profit provides the ground for optimal allocation of resources as it helps policy makers to decide on the allocation manner of financial and human resources for economic development by providing financial information with actual value. In a study by Ricol (2004) and Richardson et al. (2005) titled "Investigating the Relation between Reliability of Undertaken Items, Earnings Persistence and Share Prices", they developed Oslavan's work (1996) and removed its disadvantages.

Research Methodology

Since this research is of correlation researches type, regression analysis is used to test the model. In regression analysis, the goal is to forecast the changes of one or more than one dependent variables by considering the changes of independent variables. Furthermore, since we want to evaluate earnings persistence based on accounting standards, two time intervals will be taken into consideration, a 5-year period (1996-2000) before the execution of accounting standards and a 5-year period (2001-2005) after the execution of accounting standards. To extract necessary data, audited financial statements and existing software packages such as DENA SAHM and comprehensive stock exchange software packages were used.

In this research, correlation research method is used and the relation between dependent and independent variables is investigated using statistical methods such as regression and correlation test. On the other hand, this research uses previous data. Statistical society of this research includes the companies working in the stock exchange within 2006 to 2005. In this research, 6300 data were extracted by using Tadbir Pardaz software packages and the compressed files of stock exchange organization. Considering the model used to evaluate earnings persistence, research necessary data is as follows:

$$\mathrm{EARN}_t = \theta_0 + \theta_1 \mathrm{MB}_t + \theta_2 \mathrm{EARN}_{t-1} + \theta_3 STANDARD + \theta_4 \mathrm{EARN}_{t-1} \times STANDARD + \theta_5 MB_t \times \mathrm{EARN}_{t-1}$$

Where, *EARN* is the profit before unexpected items which is measured through dividing by average assets due to the effects of companies sizes. It was extracted by using the profit and loss statement of company.

MV is the market value of each share which was extracted by using explanatory notes of company's financial statements.

BV is the book value of each share which was extracted by using explanatory notes of company's financial statements.

MV/BV is the ratio or market value to the book value of company shares and is used to identify the companies with a high growth.

Research Results

Table 5 shows the relation between the profit before unexpected items within 2 consecutive years.

Table 5. The Relation between the Profit Before Unexpected Items Within 2 Consecutive Years

Regression Statistics	
Correlation Coefficient	0/914
Determination coefficient	0/836
Modified determination coeffiient	0/836
Standard Error	0/583
No. of Observations	1124

Variance Analysis

P_value	F_value	Average Squares	Total Squares	Freedom Degree	
0/000	5724/265	1944/095	1944/095	1	Model
		0/340	381/058	1122	Error
			2325/153	1123	Total

Estimation of Parameters

P_value	T_value	Standard Deviation	Estimation	
0/000	9/579	0/042	0/405	Fixed
0/000	75/659	0/013	0/948	Profit of the Year T

Based on the above model, it can be seen that profit is increasing each year and that the profit of each year is determined by the profit of the previous year up to 84%.

Table 6. Regression between the profit before unexpected items within 2 consecutive years

Determination coefficient	P_value	F_value	Probability level	Coefficient		Year
0/882	0/000	927/544	0/000	0/388	Year	2007
			0/000	0/962	Profit of the Year t1	
0/840	0/000	649/660	0/000	0/669	Fixed	77
			0/000	0/865	Profit of the Year t1	
0/772	0/000	419/698	0/031	0/303	Fixed	78
			0/000	0/930	Profit of the Year t1	
0/808	0/000	520/518	0/005	0/366	Fixed	79

			0/000	0/926	Profit of the Year t1	
0/798	0/000	486/736	0/038	0/299	Fixed	80
			0/000	0/944	Profit of the Year t1	
0/806	0/000	512/029	0/008	0/398	Fixed	81
			0/000	0/954	Profit of the Year t1	
0/860	0/000	748/114	0/000	0/551	Fixed	82
			0/000	0/884	Profit of the Year t1	
0/774	0/000	411/223	0/000	0/696	Fixed	83
			0/000	0/871	Profit of the Year t1	
0/863	0/000	765/942	0/003	0/458	Fixed	84
			0/000	1/030	Profit of the Year t1	

Based on the above table, each year it explains the levels of the next year, but the least explanation level has occurred in 1999 and 2004 and about 77% of profit level of each year has been explained by the profit of the previous year. But for the year 1997, we witness a 88% determination coefficient which has been considered as an appropriate model for these years.
Finally, they are omitted from the model based on standardization table and the following model is obtained.

Table 9. Regression after omitting additional variables from the model

Regression statistics	
Correlation coefficient	0/917
Determination coefficient	0/841
Modified determination coefficient	0/841
No. of observations	1260

Variance analysix

P_value	F_value	Average squares	Freedom degree	Total squares

0/000	1977/582	654/745	3	1964/234	Model
		0/331	1121	654/745	Error
			1125	2618/978	Total

Estimation of parameters

P_value	T_value	Standard deviation	Estimation	
0/000	11/159	0/045	0/504	Intercept
0/000	-4/500	0/002	-0/011	MB
0/000	69/069	0/013	0/923	EARN
0/000	-3/494	0/006	-0/020	STANDARD*EARN

The above model is statistically significant and expresses 84% of the profit levels. But before any conclusion based on the model, we must see if the above model is an appropriate model.

Investigating the Appropriateness of the Model

The following diagrams confirm relative normality of data and stability based on estimations diagram against residual is fixed variance. C-V=1.622 expresses non-correlation of residual. Therefore, the estimated model is an appropriate model.

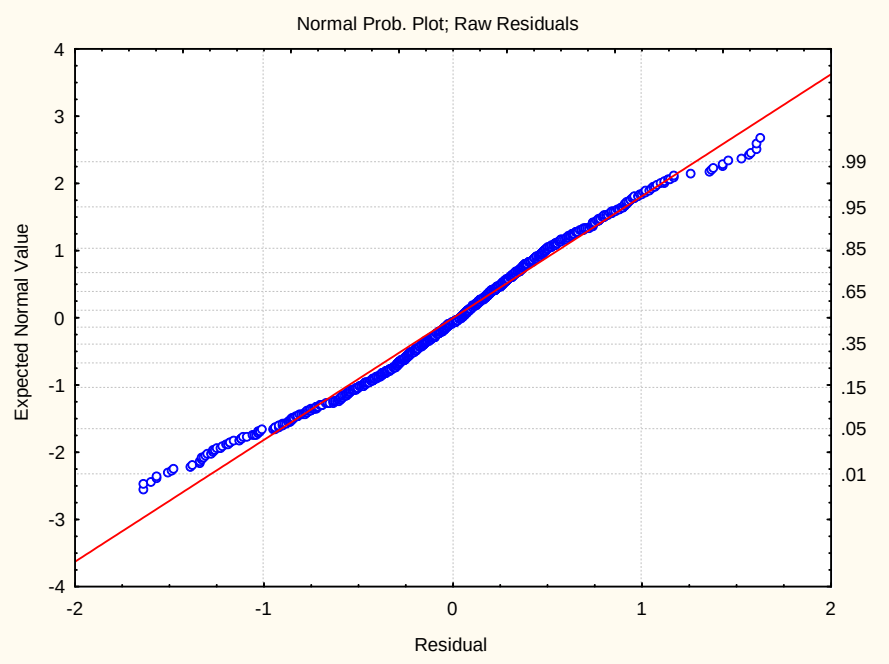

Diagram 9. Relative normality of data and stability

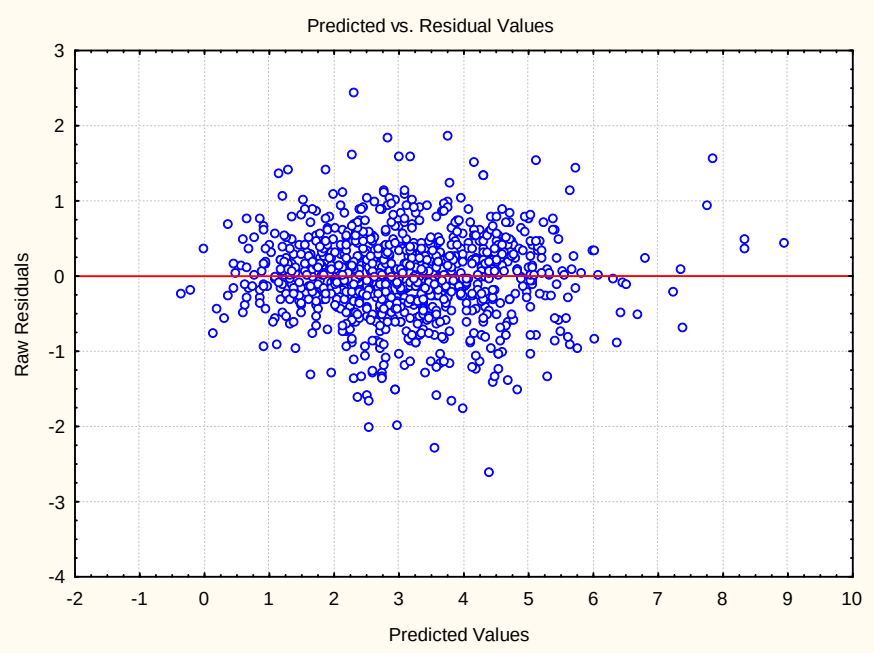

Diagram 10. Diagram of estimations vs. residuals for investigating variance stability

On this basis, a model can be written as follows:

Logarithm of the next year profit = 0.504 – 0.011 X Ratio of market value to book value of each share + 0.923 X year profit logarithm – 0.020 X standard year X year profit logarithm

The above model may be rewritten as follows:

Next year profit logarithm (for the standard year) = year profit log. x 0.903 + ratio of market value to the book value of each share x 0.011 – 0.504

Next year profit logarithm (for the nonstandard year) = year profit log. x 0.923 + ratio of market value to the book value of each share x 0.011 – 0.504

In this model, in case of using accounting standards, changing each unit in the current year profit to a level of 0.903 will affect the profit of the next year and in case of not using accounting standards, changing each unit in the current year profit to a level of 0.923 will affect the profit of the next year.

On this basis, observance of Iranian standards will have a negative effect on the profit. Based on probability level and its comparison with significance level, it can be said that the assumption Zero or the assumption that accounting standards do not have any effect on earnings persistence will be rejected at a level of 5% and it can be accepted with a 95% confidence that Accounting Standards Affect on the Earnings Persistence.

Conclusion

The following hypothesis was tested in this study: Accounting standards affect earnings persistence.

To evaluate this hypothesis, earnings persistence was investigated by considering the relation between the profit of each year and the profit of the next year.

Considering the tests performed, it can be said that assumption Zero or the assumption that accounting standards do not have any effect on earnings persistence will be rejected at a level of 5% and it can be accepted with a 95% confidence that accounting standards affect on the earnings persistence. Furthermore, considering the evaluations made during 1996 to 2000 and 2001 to 2005, it was specified that the profit of companies in the first interval, i.e., when financial statements had not been prepared based on accounting standards, was more stable.

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