

The Relationship between Corporate Social Responsibility and the Earnings Response Coefficients of the Listed Companies

Mahsa Shahsanam,

Department of Accounting, Saveh Branch, Islamic Azad University, Saveh, Iran.

Email: Mahsashahsanam48@gmail.com

Hamidreza Shamakhi

Department of Accounting, Eslamshahr Branch, Islamic Azad University, Eslamshahr, Iran.

Email: Shammkhi.h@gmail.com

ABSTRACT— The aim of the investigation is to examining the relation between corporate social responsibility disclosure and the absolute value of earning forecast error. The sample of chemical industry, oil products, cement, pharmaceutical and auto companies of the listed in Tehran stock exchange is examined for a period during 2008 to 2014. In this research, the index of social information disclosure includes the subjects of natural environment, energy, human resources, health and safety, education, participation in social activities and external rewards of firms. Measuring of corporate social responsibility disclosure is measured using annual content analysis of the firms' board of directors. The results suggest that there is a reverse and significant relation between disclosure levels of a firm's natural environment performance with absolute value of earning forecast error per share.

KEYWORDS: Social responsibility, Shareholders' Equity, return on sale, Earning per share.

Introduction

The prominent theories about CSR (Legitimacy, stakeholder theory, and political economy theory) generally indicate that managers based on various reasons such as gaining organizational legitimacy and/or stakeholders' pressure are tend to disclose CSR information, but the political economy is based on the necessity of legislation and related standards. England, U.S and Australia the initiatives in researching on CSR, are entered in field and provided standards and legislations. In Iran, despite of clause "R", the statement of theoretical conceptions of financial reporting, society and their information needs is considered, but no practical solution is planned to meet the demands. CSR is one of the research agenda for many years on that many researches have conducted. This essential feature should be established for creating interaction between them. Firms cause changes to create better procedure, more development and enhancing life standards. The firm's commitment in contribution to national development is one of the most important subjects in social responsibility which is obtained through centralization on financial, economic, social and environmental factors. The triple bottom lines theory was formed by Alkington referring to the three cases including land (environment), interest and people, and is remembered with titles such as financial value, social value and environmental value, and its application is to ensure about firms' value (rigan et al, 2009). Providing information to capital market by managers is always the main information resources. Some of information are estimations and predicting future earnings provided for capital market in different intervals. Today, forecasting and management disclosure of earnings is the most important informational resources for investors and analysts. Since, managers are responsible for collecting and providing information, they are enabled to enter their personal judgment into the estimations and influence on stock market/price. Regardless of information volume, the validity and reliability of predictions impacts for the investors and capital market authorities is considered as management' forecasting is offered to capital market. For this reason, the information volume of management's forecasting would not significantly impact on stock price and shareholders' equity until this question is resolved (Khosh Tinat, 2006). Disclosing social responsibility indices by firms indicating the firms' care about social and environmental performance leading to better qualified disclosed information, and may influence on firms' investors and stakeholders decisions. The question raised here is whether disclosing the indices of social responsibility can relate to earning forecast error per share. So, the relation between CSR and earning forecast error per share is examined in this research.

Research background

Garry (2001) pointed out that some empirical studies have showed the strong relation between disclosure, firm size and type industry. In fact, the relation between disclosure and type industry is empirically clear. These results argue that the accounting theory is a desirable proxy in supporting legitimacy theory. If the positive accounting theory is rejected as base for justification of why firms contribute to social disclosure, it is necessary to examine discussions and empirical evidences. Van der velde et al,

(2005) examining the relation between sustainability and responsibility with financial performance of the firms indicates that there is a positive and significant relation between sustainability and CSR with financial performance. The results also indicated that the investors tend to reward firms' managers who have good relationships with investors, customers and suppliers. In a research titled "the positive and negative impacts of CSR activities on firm's performance in hospitalization industry", Kang et al, (2010) studied the examination of positive and negatives impacts on CSR activities on financial performance of hotels, Casino, restaurant and airways companies which is theoretically positive and negative. The findings indicate the results of the research in various industries and helps the firms to make better strategic decisions. Bechetti et al, (2013) analyzed CSR into four factors including accounting transparency, corporate governance, stakeholders' risk, and overinvestment. They examined the subject and showed that there is a positive and significant relation between earnings response coefficients per share with the net advantage and disadvantage of overinvestment, stakeholders' risk and lack of accounting transparency, while it has negative relationship with corporate governance quality.

Research methodology

1- The research hypothesis

- There is a significant relation between CSR disclosure level with natural environment and absolute value of earning forecast error per share.

2- The research method

Since the results of the current study can be practically used, it is regarded as a practical research. The correlation researches include all investigations in which the relation between various variables using correlation coefficient is discovered or determined. Library research is one of them basically done through studying books, journals, documents, analyses, and comparisons and assessments. Generally, the research is a kind of practical, and descriptive-correlative method.

3- The field of study

The field of the study is divided into three parts of time, location and subject area.

1. Subject area: The research has been located in financial accounting issues.
2. Location area: This research has been conducted in Tehran Stock Exchange.
3. Time area: This research has been conducted during 2008 to 2014.

4- The regression model of the research

$$AFE_i^{T,h} = \alpha + \beta_1 CSRED + \beta_2 ROA + \beta_3 LEV + \beta_4 ROE + \beta_5 ROS \quad (3)$$

$AFE_i^{T,h}$: The absolute value of earning forecast error per share.

CSR: Corporate social responsibility disclosure level than economy

CSRSD: Corporate social responsibility disclosure level than society

CSRED: Corporate social responsibility disclosure level than natural environment

ROA (return on assets), ROE (return on equity), ROS (return on sale) are used as the control variables of the study.

5- The statistical population and sample

The studied sample of listed chemical industry, oil and cement productions, and pharmaceutical and auto companies in Tehran stock exchange which was examined during a 2008 to 2014. Sampling was not performed based on a sampling method, and case study was the only reason in selecting the above industries due to high sensitivity of these industries to social responsibility. Total components of the sample should cover all the following conditions:

- 1- It should not be part of an investment and holding companies.
- 2- Their fiscal year should ended to 19/3/.. Because the sample to be comparable.
- 3- Their financial information should be available.
- 4- The research should be conducted from the beginning of fiscal year 2008 to the end of fiscal year 2014 (7 financial year).

As well, the number of sample firms is 90 listed companies in Tehran stock exchange.

6- Data analysis method

F-statistics is used for generality analysis of regression pattern and T-statistics is used for significance of regression models parameters coefficients. To examine the linear relationship between the explanatory and dependent variables, Pearson correlation coefficient, and to investigate the colinear relationship between the explanatory variables, variance inflation factor (VIF) is used. In analyzing the results, of course, R^2 statistics (coefficient of determination for determining the degree of dependent variables changes to independent variables) and Durbin-Watson (lack of autocorrelation in the errors of a model) are considered. To o so, firstly, the collected data are entered into expanded Excel page and the elementary calculations are made. Then, the final analysis is made using multi-variable regression models through STATA software version 12.

Results

1- Descriptive statistics

Table 1- Descriptive statistics

Variable	Acronym	Min.	Max.	Mean	SD
Earnings forecast error	AFE	-0.79	1.64	0.003	0.188
CSR disclosure level to natural environment	CSRED	0.08	0.76	0.34	0.37
Return on assets	ROA	-0.14	0.84	0.28	0.46
Return on equity	ROE	-0.17	0.71	0.39	0.29
Financial leverage	Lev	0.15	0.87	0.42	0.29
Return on sale	ROS	-0.26	0.64	0.136	0.42

2- Normality test

Before testing the research's hypotheses, data normality should be reassured. To test the normality of statement of error, there are several tests. Shapiro-Wilk test is one of those tests used in this research. If residuals have normal distribution, it can be claimed that the population has also normal distribution.

H0: The model's variables are normal.

H1: The model's variables are normal.

Table 2- Normality test

Variable	Shapiro-Wilk test	Significance level
The error statement of the first hypothesis	0.64	0.371
The error statement of the second hypothesis	0.29	0.725
The error statement of the third hypothesis	0.92	0.136

Normality test indicates the kind of used statistics. This test determines how data are distributed and dispersed. As the table 1-2 shows, the significance result of the test for all data indicates data normality. The normal data determines how data are distributed and dispersed.

3- F-Limer test

Table 3- F-Limer test

Hypothesis	Effects test	Statistics	Significance level	Test result
Third	F	22.58	0.000	Fixed effects

The results indicate that the significance level of the model is under 5%. So, the H0 is not confirmed.

4- Hausman test

Table 4- Hausman test

Hypothesis	Test summary	Chi-square statistics	Significance	Test result
Third	Random period	1.06	0.12	Random effects model

Chi-square is a non-parametrical test used for evaluating nominal variables equality. This test is the only solution for testing equality of nominal variables with more than two items, hence, it is more practical than other tests. The test is sensitive to the sample volume. As the results of the chart indicate, significance amount for the hypotheses is more than 5%. Therefore, H0 for random effects is confirmed. This case suggests lack of relationship between estimated regression error and independent variables. Regarding the obtained results, panel data method is used to test the hypotheses.

5- Heteroscedasticity and autocorrelation

One of the regression equation assumptions is fixed variance of error recognized as homogeneity of variances. If errors have not fixed variances, it is said that heteroscedasticity exists. Another linear regression model is zero covariance between error components during the time (or sectional for all data). If the variance of error statements is not fixed, heteroscedasticity is observed. One of the regression equation assumptions is fixed variance of error recognized as homogeneity of variances. If errors have not fixed variances, it is said that heteroscedasticity exists. Another linear regression model is zero covariance between error components during the time (or sectional for all data). In this research, Lr and Wooldridge test are used for examining heteroscedasticity and autocorrelation test, respectively.

H0: The variables of autocorrelation and heteroscedasticity have not variance.

H1: The variables of autocorrelation and heteroscedasticity have variance.

Table 5- Autocorrelation and heteroscedasticity test

Autocorrelation	Autocorrelation test		Heteroscedasticity	Heteroscedasticity test		First hypothesis
	Sig.	F		Sig.	F	
No	0.967	0.08	No	0.422	0.57	

Examining the results of heteroscedasticity test indicates the significance level is more than 5%. So, H0 is not rejected, indicating the variables of the research have homogeneity and don't have autocorrelation.

6- The research's hypothesis test

H0: There is no relation between CSR disclose level to natural environment and of absolute value of earning forecast error per share.

H1: There is a relation between CSR disclose level to natural environment and of absolute value of earning forecast error per share.

Table 6- The research's hypothesis test

Variable	Acronyms	Coefficient	z-statistics	Sig.
CSR disclosure level to natural environment	CSRD	-0.09	02.18	0.034*
Return on assets	ROA	0.32	2.65	0.017*
Financial leverage	LEV	-0.78	-3.15	0.000*
Return on equity	ROE	0.23	2.39	0.024*
Return on sale	ROS	0.15	2.12	0.036*
y-intercept	B	0.08	1.05	0.276
R ²		0.21	Wald	32.69
			Sig.	0.000**

Table 1-6- indicates the model is optimal for the hypothesis test. Wald statistics (32/69) and significance level (0.000) indicates the model is significant for the hypothesis test. The results of Woodridge test suggest that lack of autocorrelation between error statements. The adjusted coefficient of determination is 21%. The variable of CSR disclosure level to natural environment, absolute value of the earning forecast error per share, and ROA, ROE, ROS and financial leverage are considered as dependent, independent, and control variables of the study. CSR disclosure level to natural environment has negative and reverse relation with absolute value of the earning forecast error per share, regarding significance level (0.000). There is a relation between ROA, ROE, ROS and financial leverage with absolute value of the earning forecast error per share. Regarding the relation between CSR disclosure levels to natural environment has negative and reverse relation with absolute value of the earning forecast error per share, the third hypothesis is confirmed. The concept of significance in correlation is whether the correlation between the two variables is random, or there is a correlation between them. To be significant or not, is more important than the obtained number. Correlation coefficient is indicated with R. If we make the correlation coefficient exponent 2, the amount of coefficient of determination is calculated among the two variables. The coefficient of determination shows that what percent of changes of dependent variable is described by independent variable. This coefficient has many applications in regression which is 0.24% in this hypothesis.

Conclusion and Recommendations

CSR can be considered as conception by which organizations emphasize the interests of their stakeholders through legal requirements. It is recommended, therefore, to have legal requirements and obligatory disclosing of financial information, regarding CSR in order to try to expand the relation between business unit and its stakeholders as an effective mechanism. Regarding the positive and significant relation between CSR and its dimensions with financial performance and firm's earnings, it is necessary for those investors who consider current and short-term profit, and to maximize their profitability, give priority to investments which have most CSR disclosure and its dimensions in a firm. The professional institutions which are responsible for providing accounting standards, providing social accounting standards and carry out more researches and regarding cultural and social characteristics dominant in talented countries, put pressure on managers of business units to disclose such information.

Reference

1. Ali Parsaeian (2007), "Cost accounting with emphasizing on managerial issues", Volume 3, Terme publicatons.
2. Ali Jahankhani; Asghar Sajjadi (1995), "Applying the concept of economic valuation added in financial decisions", Scientific and research journal of financial investigations, second year, No. 5 and 6.
3. Farzaneh Chavosh Bashi (2010), "Introduction to organization-level social responsibility", Bulletin No.62. social responsibility. Assistant of cultural and social investigations; Strategic researches institute publications.
4. Hashem Nikomaram; Benam Feiz abadi (2010), "Social responsibility from the viewpoint of Islam", cultural and social investigations group. Investigation No.3.
5. Hashem Nikomaram; Bahman Bani mahd (2009); "Financial accounting theory (introduction to descriptive theories)", Islamic Azad University, Science and Research Branch, First edition.
6. Mahmoud Feghi Najafabadi (2009); "Evaluating the performance of the listed companies in Tehran stock exchange with Tobin's Q to P/E ratio", M.A thesis, accounting, School of Management and economics, tarbiat Modares Univrsity of Tehran.
7. Mahdi Iran Nezhad Parizi; Sepideh Tavassoli (2010), "Social responsibility and Green management", Bulletin No. 62. social responsibility; assistant of social and cultural researches, Practical researches institute publication.
8. Reza Shabahang (2012); "Management accounting", First edition, Auditing organization publications, 22nd edition.
9. Zahra Masoudi (2011), "Examining the impact of organizational transparency on an organizatio's performance (Case: food industry); M.A thesis, public management, school of management and economics, Tarbiat Modares University of Tehran.
10. Zohre Sarmad; Abbas Bazargan; Elahe Hejazi (2001); "research methods in behavioral sciences", Tehran, Agah publications; fifth edition.