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Relationship between Financial Information Transparency and Financial Performance of Listed Companies in Tehran Stock Exchange

Azita Jahanshad[1], Farzaneh Heidarpoor[1] and Yaser Valizadeh[2*]
[1]Central Tehran Branch, Islamic Azad University, Tehran, IRAN
[2]Department of Accounting, Central Tehran Branch, Islamic Azad University, Tehran, IRAN

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Abstract

This study investigates relationship between financial information transparency and financial performance of listed companies in Tehran Stock Exchange. Information related to research variables is for 2006-2011 (a 6-year period) and 94 listed companies in Tehran Stock Exchange were studied as sample. Using transparency criteria specified in Standard and Poor's model, transparency level in the companies listed in Tehran Stock Exchange were measured and evaluated with financial performance. After measurement of information transparency of the companies and the financial performance, their correlation for single companies in the whole 6-year period and year by year was tested. To this end, SPSS software was used. Results suggest there is significant relationship between financial information transparency and financial performance at 95% confidence level.

Keywords: Transparency criteria, financial information transparency, financial performance.

Introduction

Today one of the concerns for those involved in capital market in different countries is financial information transparency and disclosure quality of companies. Bushman et al.[1] defined financial information transparency as ability of wide access to relevant and reliable information about the financial performance, financial status, investment opportunities, governance, vibration and risk taking in economy. Transparency in financial information in one hand ensures macro stakeholders that they always receive reliable information about the company's value and macro stakeholders and managers do not violate their rights and on the other hand, it encourages managers for attempt for increasing the company's value rather than pursuing short term personal interests[2]. Lack of adequate transparency in financial statements may condition the profit to changes in managers' discretion and thus quality of the corporate performance which is an important factor in decision making of stakeholders, is reduced and leads to inappropriate resource allocation and capitals are directed to an unknown direction and the economy would suffer from crisis. World's capital market agree that transparency is one of the most important way to prevent corruption and provision of distorted information is done often with the aim of carrying out illegal acts. However, there is no evidence in reality for operationalizing of transparency related reforms and it seems that there is gap between expectations and experimental evidence concerning transparency. Even in developed countries and liberal communities there is lack of transparency in governance and financial affairs. This study helps specifying cases which cause promotion of financial information transparency in the companies listed in Tehran Stock Exchange. Following evaluation of financial information transparency in companies listed in Tehran Stock Exchange, this study investigates its relationship with the corporate performance.

Concept of Transparency: Vishmanth[3] defined transparency as timely and reliable increase of economic, social and political information which is accessible for all related stakeholders. Also they defined lack of transparency as intentional prevention of access to information, misrepresentation of information or market failure to ensure efficiency and quality of the information provided.

Florin[4] defined transparency as "disclosure of information by companies which is related to their evaluation". In fact, transparency is closely related to accountability and the reason for demand for transparency is that the market sees companies responsible for the adopted policies and their performance[5]. The common point in all above definitions is "ability to access information" and "the ability to communicate and presence of receive and send information process", each of which are explained in the following. Concept of transparency in markets has some important features. Presence of transparency ensures that there are these indices in information. Vishmanth[3] provided a model for measurement of financial information disclosure. They provided three criteria for transparency of information: i. Equal and timely access to information: financial laws and regulations in the market of emerging and developed countries where achieving reliability of information is necessary information should be accessible timely and with fair cost. ii. Comprehensiveness of information: Company information should be easily understandable for decision makers. iii. Relevance: Published information should be relevant and

comparable. Quality of information relevance ensures that investors, depositors and public can use information for their personal purposes with mental nature. iv. Reliability: Information providers should make sure that information are reliable. To this end, the company should provide information related to financial operations and figures carefully. This information should be done in high quality, timely and perfectly.

Measurement of Transparency: Complexity of transparency concept has caused its measuring to be difficult. Conceptually quantitative degree of transparency can be measured by accuracy of received information which is itself a function of information relevance and quality. In previous works such models as Centre of International Financial Analysis and Research (CIFAR), Dipiazz and Eccles[6] model, Bushman, Piotroski and Smith's model and Standard and Poor's model for measurement of transparency[1]. Three dominant models have been accepted in the world for measurement of transparency and most works have used them. These models are reviewed in the following:

CIFAR index: Index of disclosure and transparency quality was published by the Centre of International Financial Analysis and Research (CIFAR) in 1993 and 1995. It tested over 90 cases in annual reports of some companies in different countries and most authors have used these indices for investigation of relationship between transparency of accounting, legal structures, culture and economic performance in different countries[7,8].

Dipiazz and Eccles's transparency model: Dipiazz and Eccles[6] proposed a new model for transparency of the company. It is a three-level model which provides a new look at the future of company's reporting. Its three levels include: i. Level 1: a collection of generally accepted accounting principles (GAAP), ii. Level 2: industry-specific standards for assessing and reporting on the performance of which are set by the industry itself. iii. Level 3: Company-specific information including strategies, plans, risk management procedures, payment policies, specific performance indicators, company legal principles.

This model doesn't ask companies to report their information discretely at three levels, but investors and stakeholders benefit from this information only when companies disclose information at three levels uniformly which offers a realistic image of the company.

Bushman, Piotroski and Smith's transparency model: Bushman, Piotroski and Smith[1] defined a framework for conceptualizing and measuring transparency of companies, according which transparency in companies has three main elements: i. Financial reporting (voluntary and mandatory), ii. Disseminating information through the media and internet, iii. Gaining confidential information and sending it through financial analysts, institutional investors and individuals within the company.

Standard and Poor's model: Recently Standard and Poor's Institute have performed comprehensive research works for evaluating information provision quality and transparency of the companies with cooperation of academics in different countries. Their findings for Asia, Latin America, Southeast Asia, Japan, Europe and North America during 2002 to 2004 have been published. This institute also rate annually large companies listed in international stock exchanges with this index. This model includes 105 criteria in three following areas and it was designed basically according to reporting standards of OECD states: i. Structure of ownership and rights owners (28 criteria), ii. Financial transparency and information disclosure (35 criteria), iii. Board Structure and Management (35 criteria).

Transparency in structure of ownership and rights owners were measured by 28 criteria. These criteria emphasize on such factors as disclosure of stakeholders based on the nature (legal, factual, public or private), number of shares and nominal value of issued shares, minutes of meetings and talks. Financial transparency and information disclosure was measured by 35 criteria, main of which include disclosure of such cases as description of strategic plan, details and parameters related to the business environment and industry trends and details of the production, sale and profitability of products and market segments, and their share of market.

Transparency in board structure and management was evaluated using 35 criteria, main of which are described in the following: Information presented about the chairman and other board members except their name and title including their records, past experiences and cooperation time with the company, information about key managers, roles and responsibilities of board members.

Financial Performance Measurement: There are different methods for measurement and evaluation of performance and determining value of the company which with essential shortcomings. As these methods are used as criterion for measurement of the performance and determining company value, obviously they would not lead to determination of actual value of the company. However, evaluation of the corporate performance is a necessity and advanced criteria should be used for it so that various aspects in terms of limitation in activity and possibility for enjoyment of facilities are considered. In a general classification, performance measurement and performance criteria can be divided as financial and non-financial criteria.

Non-financial criteria include production, marketing, administrative and social criteria and financial ratios is among techniques which has been proposed as financial criterion. Some authors recommend using combined indices (financial and non-financial). However, determining the type of criteria, their

correlation as well as specifying their value and weight in total criteria is not a simple task. Considering that a performance evaluation is done from which perspective and for what purpose is also necessary.

Different people and groups have evaluated performance of the companies and use its results in their decision-making and criteria considered by a group of stakeholders may not match to other stakeholders. In this work, the main focus is on the view of investors and their evaluation of the corporate performance. For measurement of financial performance of the companies in this work, 8 financial indices in 5 groups (table 1) as representative of measurements for financial performance of the companies were selected[9].

Research Background: Concerning regressions of non-cumulative earnings return for revenue and expenses growth, they found that there is an optional advantage for organized growth dependent on unorganized growth. These findings are consistent with elements of organized growth of earnings in the view of investors so that they are more stable than non-organized elements of the growth. Saad et al.[10] studied relationship between transparency of gain and loss statement with characteristics of the companies. Characteristics of the companies were classified into three groups: Structural (firm size leverage ratio, the number of shareholders), related to market (listing status, type of industry) and performance (profit margin, rate of return on capital and liquidity). Results of this work indicate that the number of shareholders is the only important factor at gain and loss transparency level, the other characteristics at gain and loss transparency level are not important. Chebbi[11] studied relationship between increased company's yield and increased transparency. He divided explanatory variables into three groups: variables of price, spread, and spread characters. In some sizes, three levels have been formed for defining types of risk and interest rate risk. He found a positive relationship between accuracy of information and increased funding .also he showed only for investment in stock exchange, debt ratio is correlated with quality of disseminated disclosure.

Hsiu[12] investigated role of financial information transparency in increased investment in stock exchange. Results showed that all three aspects of transparency including financial information disclosure, ownership structure transparency and transparency of the board structure, affect behavior of investors in stock exchange, and ownership structure had the highest influence. Of course, investors in stock exchange mostly care for financial information disclosure.

Chanig et al.[13] investigated financial information transparency and signaling theory in Taiwan. Their findings suggest that there is a direct relationship between corporate financial transparency and corporate performance. He found that appropriate corporate governance has significant positive relationship with the corporate performance.

Hallwood[14] studied reasons for transparency importance and the way of transparency measurement and relationship between transparency and shares price. His findings indicate that information content of shares price in companies with less secrecy and transparent information provision reflect the good position of such companies. Hallwood[14] then explained components needed for a transparent website for providing information and reports of the companies.

Research Hypotheses: H 1: there is relationship between financial information transparency and corporate performance. H 2: Increased financial information transparency leads to improve financial performance.

Table-1
Indices and groups of companies' financial performance measurement

Measurement method		performance index	Performance group	No
MB=MV/BV	Ratio of market value to book value of equity capital	MB	Company's market value	1
Q=(M.V.S+B.V.D)/ B.V.A	Book value of total assets / (book value of debt + market value of common stock)	Tobin q		
	P/E	Earnings per share / stock price	P/E	
ROA=OP/TE	Ratio of Operating profit to book value gather-assets	ROA	Profitability	2
ATO=TR/TAS	Total revenue to total assets ratio	ATO	Activity	3
ASR=$(p_1-p_0+D)/p_0$	Annual stock returns	ASR	Return on capital	4
ROE=OP/TAS	Shareholders Equities	ROE		
EVA=(R-C)Capital	Economic Value Added	EVA	Based	5

Methodology

Statistical population included all companies listed in Tehran Stock Exchange which was 510 companies up to beginning of 2011 according to Burs Rah-Avard Novin software. Sample size was selected in screening method based on following criteria: i. In order to homogenization of statistical sample in the years under study, were listed in Tehran Stock Exchange before 2006, ii. In order to increasing comparability, their fiscal period ends with March and they didn't change their fiscal year during mentioned years, iii. Their information for audited financial statements is available for the period under study; they are not Financial Industry, and Investment and Bank companies.

The number companies reduced to 94 after elimination of outliers.

Model Used and Data Analysis: Following regression models are used in this work for testing research hypotheses.
H 1: CTit =α + β1MTBVit + β2PTCFit + β3 PEit + β4MASRit+ εit
H 2: MTBVit= α + β1CTit+ εi, PTCFit= α + β1CTit+ εi, PEit= α + β1CTit+ εi, MASRit= α + β1CTit+ εi

Results and Discussion

In this section, research findings are analyzed according to the hypotheses. Hypothesis 1 stated there is relationship between financial information transparency and financial performance. For testing first hypothesis, following regression model was used:

$$CTit = \alpha + \beta_1 MTBVit + \beta_2 PTCFit + \beta_3 PEit + \beta_4 MASRit + \varepsilon it$$

Following testing assumption of the regression and ensuring their establishment, results of above regression equation fit are given in table 2. F value (11.276) suggests significance of the whole regression model. As it can be seen in bottom of table 2, coefficient of determination and the adjusted coefficient of determination for the model are 54.1 and 49.8%. Thus it can be concluded that in the regression equation, only 54.1% of the changes in financial reporting transparency of the studied companies are specified by the independent variables. In this table, positive (negative) values in coefficient value column indicate direct (inverse) effect of variables on transparency of the companies. If sig value calculated by the software is less than considered confidence level (5% in this work), significance of the variable is approved and its related hypothesis is confirmed. In addition, considering value of t statistics, if it is larger than its equivalent value in t-student table or significance level (5%), respective hypothesis is confirmed. Considering above explanations and information given in table 2, it can be said in this equation, only variable PTCF was not significant at 5% confidence level, while other variables were significant.

According to table 2, significance level of MTBV, PE and MASR values is 0.0046, 0.014 and 0.0037, respectively, which are considered less than significance level (5%) in the current work. In addition, absolute value of t statistics for these variables is larger than t statistics obtained from the table with the same degree of freedom. Thus at 5% significance level, the coefficient obtained for above variables in the regression model is significant. Therefore, it can be argued that MTBV, PE and MASR variables have significant direct relationship with financial information transparency (TC).

According to Contract theory, company is a collection of contracts between its constituents. One of them is the contract between managers and owners. It is clear that salaries and benefits and compensation of managers depend on the corporate financial performance, thus the better is corporate performance, and management is less concerned about its salaries and bonuses. Hence company management would have less motivation for manipulating information and audits. It can be stated that the higher is performance of the company; financial information would be more transparent. Hypothesis 2 states increased financial information transparency leads to improve financial performance. For testing H 2, following regression models were used: $MTBV_{it} = \alpha + \beta_1 CT_{it} + \varepsilon_{i,}$ $PTCF_{it} = \alpha + \beta_1 CT_{it} + \varepsilon_i$, $PE_{it} = \alpha + \beta_1 CT_{it} + \varepsilon_i$, $MASR_{it} = \alpha + \beta_1 CT_{it} + \varepsilon_i$

Following testing assumption of the regression and ensuring their establishment, results of above regression equation fit are given in table 2. F value suggests significance of the whole regression model.

Table-2
Results taken from regression equation fit

CTit =α + β1MTBVit + β2PTCFit + β3 PEit + β4MASRit+ εit				
Variable	**Variable coefficient**	**Coefficient value**	**T statistics**	**Significance level**
Constant	β_0	1.522	2.873	0.004
Market to book value (MTBV)	β_1	0.342	2.847	0.0046
Price-to-cash-flow (PTCF)	β_2	-0.641	0.588	0.561
Price - Earnings ratio (PE)	β_3	1.241	2.847	0.014
Market Adjusted Stock Return (MASR)	β_4	0.311	2.987	0.0037
coefficient of determination	0.0541	F statistics		11.276
Adjusted coefficient of determination	0.498	Significance (*P-Value*)		0.000
		Durbin-Watson statistic		1.924

Table-3
Results taken from regression equation fit

$MTBV_{it} = \alpha + \beta_1 CT_{it} + \varepsilon_i$								
Variable	**Variable coefficient**	**Coefficient value**	**t statistics**	**Significance level**	**adjusted coefficient of determination**	**coefficient of determination**	**F statistics**	***P-Value***
constant	$\beta 0$	2.013	-2.231	0.0261	0.332	0.301	14.231	0.00
CT	$\beta 1$	0.864	3.861	0.0002				
$PTCFit = \alpha + \beta 1CTit + \varepsilon i$								
constant	$\beta 0$	-1.748	16.69	0.00	0.278	0.241	23.121	0.00
CT	$\beta 1$	0.421	-0.705	0.4811				
$PEit = \alpha + \beta 1CTit + \varepsilon i$								
constant	$\beta 0$	1.864	3.861	0.0002	0.381	0.347	18.01	0.00
CT	β_1	1.607	2.233	0.0358				
$MASRit = \alpha + \beta 1CTit + \varepsilon i$								
constant	$\beta 0$	0.381	2.023	0.0441	0.438	0.391	15.181	0.00
CT	$\beta 1$	1.048	16.69	0.00				

In this table, positive (negative) values in coefficient value column indicate direct (inverse) effect of financial transparency on the performance variables in the companies. Considering Table 3 it can be said in all equations except equation 2 (PTCF) where CT variable is not significant, CT variable is significant at 95% confidence level. According to table 3, significance level of financial information transparency (CT) in equations 1, 3, and 4 is 0.002, 0.358 and 0.000, respectively, which is less than value considered in the current work (5%), thus they are significant in regression equations. Considering variable coefficients of financial information transparency (CT) in equations 1 (0.864), 2 (1.607) and 4 (1.048) at 95% significance level, it can be argued that there is direct significant relationship between financial information transparency (CT) and Market to book value (MTBV), Price - Earnings ratio (PE), and Market Adjusted Stock Return (MASR) and thus this hypothesis is approved.

Conclusion

Findings indicate that increase and improvement of each of performance criteria (MTVB, PE, MASR and PTCF) lead to increased financial information transparency. These findings are consistent with findings by Puatter and Dulas[15]. According to Contract theory, company is a collection of contracts between its constituents. One of them is the contract between managers and owners. It is clear that salaries and benefits and compensation of managers depend on the corporate financial performance, thus the better is corporate performance, and management is less concerned about its salaries and bonuses. Hence company management would have less motivation for manipulating information and audits. It can be stated that the higher is performance of the company; financial information would be more transparent. On the other hand, findings showed that there is direct significant relationship between financial information transparency (CT) and Market to book value (MTBV), Price - Earnings ratio (PE), and Market Adjusted Stock Return (MASR), denoting that increased financial information transparency leads to improved financial performance.

These findings are consistent with findings by Puatter and Dulas[15]. They reasoned above hypothesis in this way that increased financial information transparency leads to reduced information asymmetry which can lead to lower cost of capital and ultimately it causes improved corporate performance. Thus it is suggested that decision makers, financial analysts and potential and current investors in stock exchange pay special attention to financial information transparency and its effective factors (mentioned in this work) in analyzing investment plans in financial assets and securities; because consideration of these important factors leads to selection of Optimum investment portfolio with minimum risk and maximum ROI. Also transparency of decision making environment and obtained results are increased. In addition, general assemblies of shareholders are recommended to evaluate the performance of companies and their directors to consider financial reporting transparency and use it as a basis for evaluating performance and paying compensations and other bonus to managers.

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