Quality of Financial Reporting, Investment and Quality of Disclosure: With Stressing on Type of Financing

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Abstract:

In this study the quality of financial reporting, investment and quality of disclosure with emphasis on type of financing of companies listed in Tehran Stock Exchange have been investigated for a period 2006 to 2011. Research method of present study is multivariate regression method based on combined data. The results of the analysis of 133 companies for a period 2006 to 2011 showed in 95% confidence level that the contrasting relationship between financial reporting quality and sensitivity of corporate investment by bank financing and financing through shares issuing is reverse. These results also indicated an inverse relationship (negative) between quality of disclosure and bank financing. Moreover, there was a significant positive correlation between quality of disclosure with financing through shares issuing and bank financing, and quality of disclosure has positive effect on sensitivity of companies' investment.

Introduction

With regard to economic aspects of information, financial reporting and accounting system play a vital role in capital markets. First, accounting information allows to capital providers (including shareholders and creditors) to evaluate the potential return on investment opportunities (evaluation role or prior to accounting information). Second, it permits to investors to monitor the use of granted funds (or stewardship role or after accounting information). Generally, delegacy and information asymmetry prevent the efficient allocation of resources in capital market. Financial statements with quality are one of the mechanisms that facilitate the transfer of information between management and investors and play an important role in reducing information asymmetry (Mohammadi, 2008).

Investment efficiency means accepting projects with positive net present value; the investment inefficiency is choosing projects with negative net present value (over-investment) or non-selection of investment opportunities (under-investment). On the other hand, despite claims that quality of financial reporting could have economic implication for efficiency of investment, there is little empirical evidence for this relationship (ibid.). This study is examined the relationship between financial reporting quality, investment and quality of disclosure with emphasis on the type of financing.

Rapid growth and transformation of economic relations have led to intense competition in the field of trade, industry and investment. Therefore, companies require appropriate investments to survive and expand their activities (Chen & et

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al, 2011). Financial reporting of companies should provide information that is beneficial for actual and potential investors, creditors and other users in rational investment, credit grant and similar decisions (Gorton and Schmid, 2000). Financial reports should provide the required information to assess the firm's financial and economic status, performance evaluation and profitability, to evaluate financing and cash using. Furthermore, it should make possible the evaluating how to perform responsibility of management stewardship and legal tasks, providing supplementary information to better understand of financial information and predicting the future (Boot and Thakor, 1997). Consequently, these reports are very important in achieving the above objectives and increase in their quality can make companies investments more efficient and maintain and develop their resources (Francis & et al, 2005). Recent research suggests that rise in financial reporting can have economic consequences and can enhance the use of investment opportunities (Ball, 2001). Financing methods are considered as one of the main areas of corporate managers decisions in order to increase shareholders wealth. Grow and continuing companies' activities is required to funds that supply of these resources is often limited. The main idea of many researches done in this respect is whether the firms' investments are influenced by their methods of financing or not; if yes, how is this relationship (Gorton and Schmid, 2000). Increasingly creating and developing businesses need substantial financing that is often out of founders' control. Capital market for these companies offers the possibility of providing the required funds through stock exchange offerings (Bushman and Smith, 2001). In other words, the capital market acts as a conduit for transfer of resources from savings to all consumers of financial resources; it plays a major role in countries economy by supplying required capital of economic corporations and optimal allocation of resources (Burgstahler & et al, 2006). Also, another way of financing that has usually less

cost is shares issuing and another solution which is considered as a final option and is usually dependent on the company's reputation is bank financing. All proposed methods are usually increased the use of investment opportunities (Beck and Levine, 2002). Managers are trying to survive and grow in their organizations by using obtained resources. Meanwhile, intense competitive conditions, financial, economic, political crisis and legal and ownership requirements led to companies had been demanding for more resources. Further, they sometimes reinvested the resources of economic operations results that are belonged to owners into business unit. Finally, management optimal performance in relation to decisions made will be released to the public through the quality of financial reports (Bushman and Smith, 2001).

In this study, the effect of bank financing will be investigated by relationship between financial reporting quality and investment of companies. For this reason, quality of financial reporting, the contrast between quality of financial reporting and sensitivity of investment, financial disclosure and sensitivity of corporation investment and the variables of company investment, bank financing and financing through shares issuing will be used as dependent and independent variables respectively. Furthermore, we will use a series of control variables to determine the proper relationship between independent and dependent variables such as: free cash flows, leverage, and proportion of institutional shareholders' ownership that have indirectly impact on independent variables. Finally, this study is intended to examine the relationship between quality of financial reporting, investment and disclosure quality with stressing on the type of financing (bank or shares issuing). According to presented subjects, the aim of this study is to examine the effect of bank financing through relationship between investment and quality of financial reporting of listed companies in Tehran Stock Exchange.

Method

The method of this research is of correlation in terms of nature and content. It deals to correlation analysis by using secondary data extracted from financial statements of companies listed in Tehran Stock Exchange. This research was conducted within the framework of deductive-inductive reasoning. The reason of using co-relational method is discovering the relationships between variables. Co relational research is one of the descriptive types of studies. In the present study, we initially tested the correlation between variables; if there was a correlation between variables we will attempt to estimate multiple regression models. On the other hand, this study is an ex post facto (quasi-experimental) research, that is, it is performed based on the analysis of past and historical information (financial statements). Further, the research is of library and analytical-causal studies and is also based on panel data analysis. It is considered as practical in terms of purpose and as descriptive-correlation as regards method. In this study, the relationship of financial reporting quality, investment and disclosure quality with an emphasis on the type of financing is being correlation tested. Accordingly, the study is based on quantitative data analysis. This study is part of applied research. Applied research are studies that are performing using the results of basic researches to improve and bring the behaviors, methods, tools, equipment, products, structures and patterns used in human societies to perfection. Applied researches are also studies that apply theories, laws, principles and techniques that are developed in basic researches to solve implementation issues.

Population, statistical sample and sampling method

The population of this study consisted of all listed companies in Tehran Stock Exchange.

Actual data required for this research will be collected from the actual data of companies at Tehran Stock Exchange. In this study, the sample size is determined by applying the following conditions:

1- To increase the comparability, their fiscal period ended to March 29.

2- During the period under investigation (2006 to 2011) it does not have change in financial year.

3- Financial information is available.

3- Their balance sheet has being bank financing at least three consecutive years.

4- It is not part of financial companies (such as banks, financial institutions) and investment firms or financial intermediation companies.

5- Information required in section defines the variables is available.

Finally, based on screening method (according to table 1-3) the sample is 133 companies.

The data for this study will be collected through computer databases and referring to the library of Securities and Exchange Organization, using Rahavard Novin and Tadbir Pardaz software, research management website, Islamic development and studies of Securities and Exchange Organization[2]. Companies' financial statements including balance sheet, cash flow statements and notes accompanying the financial statements at the end of each financial year (March 29) have been used as a research tool.

First, Kolmogorov-Smirnov (K-S) is used to examine the normality of data distribution, and then Durbin-Watson test is applied for testing this that number of samples (observations) being independent and the sample being random. If the

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statistic value of Durbin-Watson test is about 2 (nearly 2 ± 0.5), it means that the sample is random and represents the lack of self-correlation. Pearson correlation coefficient is also investigated between variables. Coefficients of regression model variables are tested using T-student test. In this study, Durbin-Watson test is used to test the overall significance of regression model fitted to the Fisher statistic (F) in 95% confidence level as well as to test the lack of correlation between errors of the model. At the end, the error components curve was plotted in regression model to assess normality of error components. Using linear regression (Linear-Regression) we will test the hypotheses. In this study, the multivariate regression method will be used as statistical method and panel data. In the regression, the main objective is to examine whether there is a relationship between dependent and independent variables or not. Moreover, data analysis in descriptive statistics will be started by calculating central parameters including mean, median and distribution indexes of standard deviation, skewness and skewness elongation. These indicators will be conducted by separate industries and as a whole. After necessary corrections and classification based on variables, collected data entered Spss software using Excel software and the final analysis will be conducted. Ultimately, we will focus on confirming or refusing the research hypotheses using the results of Spss and EViews 7 software.

Results

In this study, the following regression model is used to investigate the relationship between firm investment and quality of financial reporting:

$$ACCT_{i,t} = \beta_0 + \beta_1 I_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

The statistic value of F (11.276) shows that the overall regression model is significant. As shown below in table 1, determination coefficient and adjusted determination coefficient of above model are 45.2% and 41.7%, respectively. Thus, we can conclude that in the regression equation, only about 41.7% of changes in financial reporting quality of companies are explained by independent and control variables. According to table 1, we can say that in above equation all variables are significant in 95% confidence level.

Table 1. The results of regression equation fitness

$$ACCT_{i,t} = \beta_0 + \beta_1 I_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

	Variable name	Variable coefficient	coefficient value	t-statistic	level of significance
	constant number	β 0	1.552	2.873	0.004
I	Investment	β 1	3.234	1.121	0.231
FCF	Free cash flow	β 2	2.467	3.838	0.000
LEV	Financing leverage	β 3	-2.311	-2.987	0.0031
OWN	percentage of institutional ownership	β 4	-1.241	-2.347	0.034
	determination coefficient	0.452	F statistic		11.276
	adjusted determination coefficient	0.417	Meaningfulness (P-value)		0.000
			Durbin-Watson statistic		1.811

In this study, the following regression model is used to examine the interaction between financial reporting quality and sensitivity of company investment with bank financing:

$$ACCT_{i,t} * I_{i,t} = \beta_0 + \beta_1 BankDEP_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

The statistic value of F (7.342) also suggests the significance of overall regression model. As shown below in table 2, determination coefficient and adjusted determination coefficient of above model are 51.2% and 48.3%, respectively. Therefore, it concluded that in the regression equation, only about 48.3% of changes in dependent variable are justified by

above independent and control variables.

According to data of table 2, there is a reverse relationship between financial reporting quality and sensitivity of company investment with bank financing.

Table 2. The results of regression equation fitness

$$ACCT_{i,t} * I_{i,t} = \beta_0 + \beta_1 BankDEP_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

Variable name		Variable coefficient	coefficient value	t-statistic	Level of significance
	Constant number	β 0	3.641	2.783	0.004
bankDFP	Bank Financing	β 1	-4.671	-5.073	0.000
FCF	Free cash flow	β 2	3.098	3.838	0.000
LEV	Financing leverage	β 3	-1.098	-2.388	0.002
OWN	percentage of institutional ownership	β 4	3.215	2.141	0.003
determination coefficient		0.512	F statistic		7.432
adjusted determination coefficient		0.483	Meaningfulness (P-value)		0.003
			Durbin-Watson statistic		1.742

In this research, the following regression model is used to investigate the interaction and reverse association between financial reporting quality and sensitivity of company investment with financing through issue of shares, third hypothesis of study:

$$ACCT_{i,t} * I_{i,t} = \beta_0 + \beta_1 Fin \Pr oSto_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

The statistic value of F (9.879) also indicates the significance of overall regression model. As shown below in table 3, determination coefficient and adjusted determination coefficient of above model are 54.2% and 45.1%, respectively. Therefore, it concluded that in the regression equation, only about 45.1% of changes in dependent variable of considered companies are explained by above independent and control

variables. Also, according to the data of table and markings can be stated that the relationship between financial reporting quality and sensitivity of company investment with financing through shares issuing is reverse.

Table 3. The results of regression equation fitness

$$ACCT_{i,t} * I_{i,t} = \beta_0 + \beta_1 Fin\Pr oSto_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

Variable name		Variable coefficient	coefficient value	t-statistic	Level of significance
	Constant number	ß 0	4.674	2.873	0.004
Fin Pr oSto	Financing through shares issuing	ß 1	-6.781	-6.273	0.000
FCF	Free cash flow	ß 2	1.134	5.154	0.0002
LEV	Financing leverage	ß 3	-2.677	-2.044	0.0048
OWN	percentage of institutional ownership	ß 4	1.841	3.342	0.0015
	determination coefficient	0.542	F statistic		9.879
	adjusted determination coefficient	0.451	Meaningfulness (P-value)		0.001
			Durbin-Watson statistic		1.932

In this study, the following regression model is used to examine the correlation between disclosure quality and bank financing:

$$VDIS_{i,t} = \beta_0 + \beta_1 BankDEP_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

The statistic value of F (14.765) also suggests that the overall regression model is significant. In the regression equation, only about 29.7% of the changes in disclosure level of surveyed companies are explained by above independent and control variables. According to the data in table 4 and markings can be stated that the relationship between disclosure quality and bank financing is significant and negative.

Table 4. The results of regression equation fitness

$$VDIS_{i,t} = \beta_0 + \beta_1 BankDEP_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

$$VDIS_{i,t} = \beta_0 + \beta_1 BankDEP_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

Variable name		Variable coefficient	coefficient value	t-statistic	Level of significance
	constant number	β 0	-2.677	-2.044	0.0048
bankDFP	Bank Financing	β 1	-3.841	-3.342	0.0015
FCF	Free cash flow	β 2	0.311	2.987	0.0037
LEV	Financing leverage	β 3	1.241	2.847	0.014
OWN	percentage of institutional ownership	β 4	-0.671	-2.297	0.022
determination coefficient		0.361	F statistic		14.765
adjusted determination coefficient		0.297	Meaningfulness (P-value)		0.000
			Durbin-Watson statistic		1.787

In this study, the following regression model is used to investigate the relationship between disclosure quality and financing through shares issuing:

$$VDIS_{i,t} = \beta_0 + \beta_1 Fin\Pr oSto_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

The statistic value of F (18.342) also indicates the significance of overall regression model. According to table 5, only about 337.7% of changes in disclosure quality of considered companies are explained by above independent and control variables.

At the end it can be concluded that the relationship between quality of disclosure and financing through shares issuing is positive.

Table 5. The results of regression equation fitness

$$VDIS_{i,t} = \beta_0 + \beta_1 Fin\Pr oSto_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

Variable name		Variable coefficient	coefficient value	t-statistic	Level of significance
	constant number	β 0	0.781	5.873	0.000
Fin Pr	Financing through	β 1	3.234	2.961	0.0023

oSto	shares issuing				
FCF	Free cash flow	ß 2	3.232	2.112	0.034
LEV	Financing leverage	ß 3	2.009	1.987	0.048
OWN	percentage of institutional ownership	ß 4	-0.451	-2.211	0.028
	determination coefficient	0.363		F statistic	18.342
	adjusted determination coefficient	0.337		Meaningfulness (P-value)	0.000
				Durbin-Watson statistic	2.018

In this study, the following regression model is used to test the effect of disclosure quality on sensitivity of investment:

$$I_{i,t} = \beta_0 + \beta_1 VDIS_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

The statistic value of F (14.542) also indicates the significance of overall regression model. As shown below in table 6, determination coefficient and adjusted determination coefficient of above model are 45.2% and 41.7%, respectively. Thus, we can conclude that in the regression equation, only about 41.7% of changes in firms' investment sensitivity are explained by the independent and control variables.

And according to the data in table 6 and signs can be stated that the disclosure quality has a positive effect on sensitivity of investment.

Table 6. Results of regression equation fitness

$$I_{i,t} = \beta_0 + \beta_1 VDIS_{i,t} + \beta_2 FCF_{i,t} + \beta_3 LEV_{i,t} + \beta_4 OWN_{i,t} + \varepsilon_{i,t}$$

Variable name		Variable coefficient	coefficient value	t-statistic	Level of significance
	constant number	ß 0	1.089	3.456	0.0012
VDIS	Disclosure quality	ß 1	3.563	2.451	0.034
FCF	Free cash flow	ß 2	4.067	2.847	0.014
LEV	Financing	ß 3	3.641	2.873	0.004

OWN	leverage percentage of institutional ownership	ß 4	2.034 5.073	0.000
	determination coefficient	0.452	F statistic	14.542
	adjusted determination coefficient	0.417	Meaningfulness (P-value) Durbin-Watson statistic	0.000 2.134

Conclusion

Financial reporting of companies should provide information that is useful for actual and potential investors, creditors and other users in rational investments, credit grant and similar decisions (Gorton and Schmid, 2000). Increasing the quality of these reports can make companies investments more efficient and can maintain and develop their resources (Francis & et al, 2005). Recent research reveals that increase in financial reporting can have economic consequences and can enhance the use of investment opportunities (Ball, 2001). Increasingly creating and developing businesses need substantial financing that is often out of founders' control. Capital market for these companies offers the possibility of providing the required funds through stock exchange offerings (Bushman and Smith, 2001). Another way of financing, which usually has a lower cost, is shares issuing. Moreover, another solution that is considered as final option and is usually dependent on company's reputability is bank financing that all proposed methods are usually climbed the use of investment opportunities (Beck and Levine, 2002).

In this research, the influence of bank financing has been investigated by relation between financial reporting quality and investment of companies. For this reason, quality of financial reporting, the contrast between quality of financial reporting and sensitivity of investment, financial disclosure and sensitivity of corporation investment and the variables of company investment, bank financing and financing through

shares issuing were used as dependent and independent variables respectively. Furthermore, we used a series of control variables to determine the proper relationship between independent and dependent variables such as: free cash flows, leverage, and proportion of institutional shareholders' ownership that have indirectly impact on independent variables. In fact, in this research, the relationship between quality of financial reporting, investment and disclosure quality with stressing on the type of financing (bank or shares issuing) has been studied.

REFERENCES

Ball, R. 2001. "Infrastructure Requirements for an Economically Efficient System of Public Financial Reporting and Disclosure." *Brookings-Wharton Papers on Financial Services*: 127-69.

Beck, Thorsten and Ross Levine. 2002. "Industry Growth and Capital Allocation: Does Having a Market- or Bank Based System Matter?." *Journal of Financial Economics* 64 (2): 147-180.

Boot, A., and A. Thakor. 1997. "Financial System Architecture." *Review of Financial Studies* 10: 693-733.

Burgstahler, D., Hail, L., Leuz, C. 2006. "The importance of reporting incentives: Earnings management in European private and public firms." *The Accounting Review* 81: 983-1016.

Bushman, R., and A. Smith. 2001. "Financial Accounting Information and Corporate Governance." *Journal of Accounting and Economics* 32(1-3): 237-333.

Chen, K., Chen, Z., Wei, K., 2009a. "Legal protection of investors, corporate governance, and the cost of equity capital." *Journal of Corporate Finance* 15: 273–289.

Francis, J. R., Khurana, I. K. and Pereira, R. 2005. "Disclosure

Incentives and Effects on Cost of Capital around the World." *The Accounting Review* 80 (4): 1125–62.

Gorton, G. and Schmid, F. 2001. "Universal Banking and the Performance of German Firms." *Journal of Financial Economics* 58: 29-80.

Gorton, G. and Schmid, F. 2004. "Capital, Labor, and the Firm: A Study of German Codetermination." *Journal of the European Economic Association* 2: 863-90.

Mohammadi, Mohammad. 2009. "The effect of working capital management on profitability of companies listed in Tehran Stock Exchange." *Journal of Management* 6(14).