

Examining Financial Leverage, Profitability and Firm Life Influencing Nonfinancial Information Disclosure Quality

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Abstract: Modern accounting emphasizes on nonfinancial measures as a device to compensate the financial measures' weakness and the financial measures are recommended to be used with nonfinancial ones. This study is to examine the factors influencing the nonfinancial information disclosure quality in the firms listed in Tehran stock exchange. So the necessary information were gathered from 102 firms listed in Tehran stock exchange in 2008–2012. The regression analysis was used to test the hypotheses. A model including 50 indexes based on Iran accounting standards and other regulations concerning disclosure were used to measure nonfinancial information disclosure quality. The findings indicate firm life and profitability have positive and significant effect on nonfinancial information disclosure quality and financial leverage has negative and significant effect on it.

Keywords: nonfinancial information disclosure; financial leverage; profitability; firm life

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1. Introduction

One of the economic development factors in developing countries is to have an information system. The information give intelligence and knowledge, create motives and decrease uncertainty, reveal the information concerning new choices

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or eliminate the weak ones and finally influence people and motivate them to do something. The information should send signals warn and inform about future especially in business and commerce space before it would be too late (Eccles and Mavrinac, 1995). One of the purposes of the information system is to prepare and present information to create a basis for the investors and grantors to take logic decisions; in line with this the information should be useful, related and be able to influence people's economic decisions and lead to the best decisions; on the other hand, it is necessary financial and nonfinancial information be disclosed and available to everybody so the financial information are useful for the mentioned groups, accounting purposes and financial reporting (Gray et al., 1996). Nowadays there is unanimity among the researchers that the company's real values are not shown in old financial statements. It is reasoned that it is necessary to focus on nonfinancial information in yearly reports to decrease the problem (Flostrand and Strom, 2006). Nonfinancial disclosure means the presentation of all qualitative and quantitative nonfinancial information issued through the descriptive notes with financial statements and directors' board report. New literature focuses on nonfinancial measures as a device to compensate financial measures' weakness and recommends the usage of the nonfinancial measures beside the financial ones. Thus, these measures may be informer and guide to take current decisions without imposing additional costs on the firm (Sajadi et al. 2009). It seems necessary to examine and know factors influencing the companies' nonfinancial disclosure quality.

It is possible to consider the financial and nonfinancial information disclosure as the assessment of firm operation, judgment about how the firm uses available sources and foreseeing the firm profitability process. So information disclosure should be related, appropriate and complete. By virtue of above mentioned matters concerning the study subject it is indicated that the information disclosure is not limited to a special category of the financial statements beneficiaries, but in includes a vast spectrum of the community such as professional circles, grantors, legislating groups and accounting standards compilers; also lack of enough studies in this field may be another factor indicating the importance of this study. So the study purposes are briefly as follows:

Studying the quality of nonfinancial information disclosure in the producing firms listed in Tehran stock exchange.

Knowing the factors influencing the quality of nonfinancial information disclosure and how they influence in the producing firms listed in Tehran stock exchange.

2. Literature Review

Simply disclosure means the transfer of economic information including financial, nonfinancial, quantitative or other forms in relation to the company's financial conditions and operation. If the disclosure is obligatory by virtue of some regulations and laws, it is obligatory and if it is not by virtue of some regulations, it is optional. Also implicitly it indicates the least information disclosure by which it is possible to have acceptable assessment about the risks and relative value of the firm to help the information users (Ansah, 1997).

Complete disclosure requires for the financial statements to be programmed and prepared to present a more precise image of the economic occurrences effective in a defined period and it includes the information useful for the investors and it should not mislead the reader. More evident complete disclosure principle means not to eliminate or hide any information important for or interested by the investors (Belkaoui and Kahl, 1978).

Having examined the analysers' report it was indicated that they have benefited from nonfinancial information to assess the company's future operation (Flostrand and Strom, 2006). Generally these studies have indicated that nonfinancial information have relationship value and influence greatly the beneficiaries' judgements and decisions to benefit from the financial statements. Shan (2009) has examined the level of the nonfinancial information benefited by the experts and concluded that the nonfinancial information influence the assessments about shares price. Briefly there are many reasons to promote the nonfinancial information disclosure quality and there are many evidences to recommend the advantages of such disclosures.

In this section we examine the factors effective on information disclosure quality and predictions of agency and signaling theories; the factors include profitability, financial leverage and firm life:

Agency theory predicts that there is a positive relation between profitability and information disclosure. The profitable firms are exposed to more precise examinations so they disclose more information in line with continuous position of the firm profitability (Ng and Koh, 1994). Also signaling theory predicts that the profitable firms disclose more information to signal the strong financial position to the investors (Watson et al., 2002).

Financial leverage describes the companies' financial structure and reveals the equilibrium between two long-term finance sources (The amounts invested by shareholders and creditors) (Watson et al., 2002). Agency theory predicts that there is a positive relation between financial leverage and information disclosure (Jensen and Meckling, 1976). When the firms borrow the difference between directors and creditors increases the control costs so the firms disclose more information to

convince the shareholders and creditors in order to decrease the control costs (Healy and Palepu, 2001). Signaling theory predicts the relation between disclosure and financial leverage is possible though the relation direction is not clear (Watson et al., 2002). Leventis and Weetman (2004) showed that the financial leverage is not an important variable in firms listed in Mexico and Athena stock exchange. Hossain et al. (1995) confirmed the agency theory prediction in relation to positive relation between disclosure and financial leverage.

The obligatory and optional disclosure level may be in relation to the firm life; the relation has been examined by different researchers who concluded different results. Owusu-Ansah (1997) showed that there is a significant relation between the disclosure level and firm life while Haniffa and Cooke (2002) and Al-Shammari (2008) found no relation between them. Signaling theory predicts that the older firms have a higher organized system so they disclose more information in the yearly reports to keep their reputation and validity and present a better image to the capital market (Akhtaruddin, 2005).

Notwithstanding all emphases on promoting nonfinancial reporting some serious obstacles influence new forms of companies' disclosure; the obstacles are as follows (Taylor et al., 2010):

1. *Lack of comparable data*: Nonfinancial disclosures are low comparable because they are quantitative;
2. *Lack of reliable and clear data*: The voluntary disclosure reliability may be questionable when there are no clear regulations or effective auditing system to support nonfinancial reports;
3. *Time and sources limits*: The investors encounter with limits in relation to time and sources to analyze the firm data. More information disclosure especially if they have no clear relation with investment decisions creates serious problems. The information should be available, attainable and reliable to protect efficient market.

In this section some expressions used in the study are described:

- *Disclosure*: Presenting information by methods and channels other than identifying or registering the events in financial statements differing from identifying in financial statements and this aspect of the information which is very interested (SFAC No. 5);
- *Nonfinancial disclosure*: The foresightful information including management programs, opportunities, risks and focus on factors emphasizing on long-term value creation and presenting the information to adapt better the information reported to outer users with the information reported to directors' board in order to manage better the commercial processes (AICPA, 1994);

- *Obligatory disclosure*: Some aspects on information reported because of some governmental regulations, laws and contracts, capital market and professional accounting institutions reported through financial statements (Ansah, 1997);
- *Optional disclosure*: Presenting information additional to the obligatory ones when first selected by the firm management and secondly influenced by no force legally or by capital market pressures, analyzers, etc. (Meek et al., 1995).

3. Hypotheses Development

H1: The firm financial leverage has significant effect on the disclosure quality of nonfinancial information.

There is a vast view hypothesizing the firms with high debts are obliged to disclose more information to satisfy their creditors. The firms with bigger financial leverage are potentially exposed to more agency costs; thus, one may suppose there is a direct relation between financial leverage and disclosure quality (Murcia, 2010). Also by virtue of Zarzeski's (1996) study the firms with higher debts disclose probably more information to their creditors. Also Belkaoui and Kahl (1978), Malone et al. (1993), Deumes and Knechel (2008), Taylor et al. (2010), Elshandidy et al. (2011) showed that financial leverage is a positive and effective factor on the quality of information disclosure.

Ferguson et al. (2002) concluded that there is a positive relation between the financial leverage and the disclosure quality of information. Also Lau et al. (2009) stated that the firms with vaster disclosure use the debts other than shares issue to do their operations.

Although many studies have indicated there is a positive relation between the financial leverage and the disclosure quality of information there are still some ambiguities in relation to the two variables; for example, Chow and Wong-Borne (1987), Wallace et al. (1994), Camfferman and Cooke (2002) and Rajab and Schachler (2009) found no relation between them.

H2: Firm profitability has significant effect on the disclosure quality of nonofficial information.

By virtue of agency theory the firms with high profitability benefit from the company's issued information for their personal profits; they try to hold and continue their professional position and increase their receivable rewards through disclosing more financial information. On the other hand, by virtue of signaling theory the firms owners are interested in presenting 'Good News' to capital market to prevent their shares value fall (Watson et al., 2002). In view of political economy the firms try to correct the profit level by disclosing more information.

Singhvi and Desai (1971) stated that more profit makes directors disclose more information to describe their potency and role in maximizing shareholders' wealth. Also high profitable firms may be proud of this result and wish to disclose more information for people to increase their positive operation effect; on the contrary, the directors experiencing low profitable firms may experience a feel of danger and limit information disclosure to hide somehow their company's weak operation.

Leventis and Weetman (2004) concluded that the high profitable firms are more vulnerable to legislator's intervention so they disclose more information in their yearly reports to justify the financial operations and decrease political costs.

Some researchers have presented different view; for example, Lang and Lundholm (1996) do not believe in any defined relation between profitability and information disclosure limits but believe that this relation usually has no defined direction. The findings of McNally et al. (1982) are not in accord with Lang's and Lundholm's; they showed that there is no significant relation between the quality of information disclosure and companies' profitability in New Zealand. Wallace et al. (1994) found no significant relation between the two variables.

Camfferman and Cooke (2002) had unforeseeable findings from their study; their findings showed that there is a negative and significant relation between English companies' profit margin and the quality of the information disclosure.

Vandemele et al. (2009) concluded that there is a negative relation between profitability and on the quality of the information disclosure.

H3: The firm life has significant effect on the quality of the nonfinancial information disclosure.

Firm life is one of the new variables proposed by Camfferman and Cooke (2002) and Akhtaruddin (2005) and its relation is examined with information disclosure quality. It is supposed that the firm life may play an important role in defining the information disclosure quality. Older firms try to disclose more information to keep their reputation and fame.

4. Study History

Some of the studies executed in developed and less developed countries are summarized as follows:

- Richard et al. (2003) examined the relationship value of nonfinancial operation standards and accounting information between ten superior airlines firms in airplane industry in U.S.A. in 1988–1999; in the study profit and unusual changes in it were used as the representative for accounting information; the findings show that profit, unusual changes in it and nonfinancial disclosures have significant

relation with the companies' shares yield. Also the findings indicated that the nonfinancial disclosures have increasing effect on the relationship value of accounting information;

- By regression analysis Vanstraelen et al. (2003) examined the quality of nonfinancial disclosures quality and financial analyzers' potency to predict between the producing firms listed in three European countries' (Germany, Netherland and Belgium) stock exchange in 1999; their findings indicated that the nonfinancial information disclosure quality has positive and significant relation with companies' size. Also more foresightful nonfinancial information disclosure is with less information asymmetry and higher precision by the analyzers in predicting companies' profitability;
- Al-Saeed (2006) studied the relation between companies' features and the information disclosure rate in financial statements of the firms listed in Saudi Arabia stock exchange in 2003 so he defined 20 disclosure indexes by virtue of previous studies and assessed the sample of 40 firms according to non-weight index method. His findings indicated that the information disclosure rate average is less than the possible points medium rate. Also the firm size who was measured by total assets logarithm had positive and significant relation with information disclosure rate while unexpectedly the debt ratio, possession dispersion, firm age, profit marginal, industry type and auditing firm size had no relation with the information disclosure rates in the financial statements;
- Dorestani (2009) examined the relation of nonfinancial information disclosure with accounting and market operations, profit quality standards and analyzers' prediction in the firms listed in NYSE stock exchange by virtue of regression analysis; the findings indicated no relation between above variables with nonfinancial information disclosure;
- Arvidsson (2011) examined the nonfinancial information disclosure rate in yearly reports of the firms listed in Stockholm stock exchange in 2008; the study indicated that the rate of attention and concentration on nonfinancial information related to intangible assets were interested in yearly disclosures. This attention increase was evident in both compiled laws and demands rate.

The management team should not only present tangible assets in yearly reports but also show the role played in the process creating companies' value and strategy by intangible assets. Besides, the study indicated the process change in the companies' yearly reports towards the presentation of the information related to the created companies' social responsibilities, studies and development. The study findings indicated that if nonfinancial information is disclosed properly, the financial statements weakness and inefficiency are compensated and if they are not disclosed, perhaps it would be a risk damaging efficient allocation of the sources in the shares market.

5. Study Method

Regression model designed to test the firm features influencing nonfinancial information disclosure quality is as follows:

$$DISC = \alpha + \beta_1(LEV) + \beta_2(PRF) + \beta_3(AGE) + \varepsilon$$

The study variables and their measurement method are shown in following table.

Table 1. Independent Variables, Dependent Variables, Measurement Method and Symbols Incorporated into the Model

row	variables	measurement method	symbol incorporated into the model
1	the rate of nonfinancial disclosure	issuing checklist	Disc
2	financial leverage	dividing total debts by total assets	Lev
3	profitability	dividing net profit by total sale	Prf
4	firm life	the year when the firm listed in the stock exchange until March, 20, 2011	Age

6. Data Analysis

In this section mean statistics, middle, minimum, maximum and standard deviation of each variable is presented.

Table 2. Descriptive Statistics of the Study Variables

variables	Disc	Age	Lev	Prf
number	510	510	510	510
mean	43/59	14/33	0/61	0/15
middle	44/00	14/00	0/64	0/12
standard deviation	0/17	7/21	0/17	0/15
minimum	14/00	6/00	0/04	-0/22
maximum	72/00	43/00	0/99	0/99

Inferential Statistics: Testing the Effect of Firm Features on Nonfinancial Information Disclosure Quality

Table 3. Correlation of Firm Features and Nonfinancial Disclosure

		Disc	Age	Lev	Prf
Disc	Pearson correlation	1			
	significance number	-			
Age	Pearson correlation	0/328**	1		
	significance number	0/000	-		
Lev	Pearson correlation	-0/411**	-0/284**	1	
	significance number	0/000	0/000	-	
Prf	Pearson correlation	0/397**	0/113*	-0/195**	1
	significance number	0/000	0/011	0/000	-
		510	510	510	510

Summarized Model Statistics Study

Table 4. Summarized Statistics of Study Model

independent variable	dependent variable	correlation coefficient	definition coefficient	estimated standard deviation	significance rate	Durbin – Watson
(a)	nonfinancial disclosure	0/670	0/449	0/075	0/000	1/852

Predictors: Fixed Variable, Firm Life, Profitability, Financial Leverage

By virtue of the findings from Table 4 the variables related to the firm feature have significant effect on nonfinancial information disclosure quality and by virtue of the correlation coefficient there is a positive and significant relation between the variables related to the firm feature and nonfinancial information disclosure quality; the coefficient definition is 0.449 namely the variables related to the firm feature may predict 0.449 of the dependent variable changes (nonfinancial information disclosure quality).

Testing significance of regression model (Test 'F'):

In this section the study's model significance is tested by variance analysis test as follows:

Table 5. ANOVA^b

regression equation	total squares	freedom grade	squares mean	statistic 'F'	significance rate
1 regression	2/369	6	0/395	68/401	0/000 (a)
remainders	2/904	503	0/006		
total	5/273	509			

(a) Predictors: Fixed variable, firm life, profitability, financial leverage.

(b) Dependent variable: Nonfinancial disclosure.

As you see in Table 5 considering the significance is less than 5 percent the regression model significance is accepted.

Testing significance of regression coefficients (Test 'T') and examining if there is collinearity.

Table 6. Test "T"

regression model	nonstandard coefficients		standard coefficient	statistic 'T'	significance rate	statistical collinearity	
	variables coefficient	standard deviation	Beta			Tolerance	VIF
fixed variable	0/341	0/040		8/598	0/000		
financial leverage	-0/083	0/014	-0/210	-5/826	0/000	0/845	1/183
profitability	0/137	0/016	0/293	8/405	0/000	0/901	1/110
firm life	0/002	0/000	0/154	4/354	0/000	0/872	1/147

As you see in Table 6 the profitability variable has the most effect and financial leverage has the least effect on the dependent variable (Nonfinancial information disclosure quality) in above model. Final equation of the study is stated as follows:

$$\text{DISC} = 0/341 - 0/083(\text{Lev}) + 0/137(\text{Prf}) + 0/002(\text{Age})$$

Defining regression model accuracy and examining the effect of the presented model:

It is necessary to examine the presence of three following conditions in the remainders by virtue of Spss output in order to define the accuracy of the regression model and effectiveness of the presented model:

- the remainders should be normal;
- the remainders variance should be fixed;
- the remainders should be independent.

Having defined the Durbin–Watson amounts we concluded that the errors independent for all variables and $1.5 < \text{Durbin-Watson} < 2.5$. Also having examined the outputs we concluded that the errors were fixed and their variance was fixed.

7. Conclusion

The findings from H1 indicate the financial leverage has had negative and significant effect on nonfinancial information disclosure quality. By virtue of signalling (Messaging) theory it was expected that the firms with higher financial leverage disclose more information to decrease the agency costs and information asymmetry; one of the probable reasons may be related to lack of ranking firms in Iran capital market and the same finance costs in most firms active in the market free from risk. On the other hand, it seems that the banks and credit institutions as the main factor financing firms do not request for more information disclosure and transparency from the companies. The findings from H2 indicate the profitability has had positive and significant effect on nonfinancial information disclosure quality. Singhvi and Desai (1971) stated that more profit makes the directors disclose more information to justify their potency and role in maximizing shareholders' wealth so the management reward increases. On the basis of signaling theory the directors of high profit firms are proud of the achievement and disclose publicly more information in order to show the positive effect of their operation. On the contrary, the directors of low profit firms feel the risk and limit the information disclose to hide somehow the weak operation of the company. The findings from H3 indicated the firm life has had positive and significant effect on nonfinancial information disclosure quality. Ansah (1997) stated the older firms are able to produce more information with less costs than the younger ones because of more organized system, more experienced staff and more expert accounting system. Also the younger ones are more vulnerable in competitive conditions especially if they disclose defined cases such as the information related to new study and development costs while the older ones are less vulnerable, if such information is disclosed by the competitors.

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