

THE RELATIONSHIP BETWEEN FINANCIAL AND NON-FINANCIAL FACTORS WITH ACCOUNTING DISCLOSURE QUALITY IN FIRMS LISTED ON TEHRAN STOCK EXCHANGE

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ABSTRACT

Current research is considering the relationship between financial and non-financial factors with disclosure quality of information of companies listed on Tehran stock exchange during 2007-2012. For assessing disclosure quality, the information resulted from ranking companies listed in Tehran stock exchange have been used. Financial variables of the research include Return On Asset (ROA), operating cash flow scaled by total assets, total liabilities scaled by shareholders' funds and ratio of market value to book value of equity and nonfinancial variables includes ratio of number of traded share to issued share, ratio of number of days with a non-zero volume to total number of trading days, changes in the management and log of the number of pages in the annual report. Findings showed that there is relationship between disclosure quality with ROA and ration of operational cash flow, and except the number of traded shares to issued share other non-financial variables have significant relationship with disclosure quality.

KEYWORDS: Disclosure quality, financial factors, non-financial factors.

INTRODUCTION

Regarding economic aspects of accounting information, financial reporting and accounting system play vital function at capital market. The main goal of financial reporting is providing information needs of investors, creditors and other users of information. Regarding that mentioned users put financial statements as one of main resources of information about economic units as basis of decision- making, so financial statements based on viewpoint of Financial Accounting Standards Board should provide information that is beneficial for potential investors and creditors. For profitability of accounting information about decision making, goals of accounting makes it necessary to disclose related information properly and completely. Disclosure in accounting is a comprehensive word that almost encompasses all processes reporting and affects all financial aspects. Identification, measurement and disclosure of financial information can affect market view toward business units and its financial situation and therefore needs many attentions and consideration. In recent years many studies has been done about considering the relationship between quality of financial reports with disclosure levels in annual statements and characteristics of companies. Considering annual reports of companies' shows that quality of presented information in such reports is different and these differences are probably due to management thought and their thinking philosophy and also their discretion about information disclosure for their investment purposes.

Regarding that quality of information reported from different business units can be different; this study is considering the motivations of managers for disclosure of accounting information with high or low quality. It is expected that as the quality of accounting information presented in financial statements is higher, the level of reliance of investor to business units' increases and financing in business unit through share and debt is done with more facility. Therefore considering available motivation for presenting accounting information with high or low quality can manifest managerial motivation secrets and explains this kind of managerial tendencies very well.

FINANCIAL FACTORS AFFECTING ON DISCLOSURE QUALITY

Business units having favorable performance tend to disclosure of accounting information. Asset output and higher operational cash flow encourages them to supply information with higher and more reliable quality to be certain that activators of capital market are aware of their favorable performance criteria. It is expected profitability has relationship with higher liquidity and disclosure with better quality, as higher quality disclosure can be a reasonable passage at displaying performance ability and favorable financial criteria such as profitability and liquidity. Such units even in periods that profit of business nits have reduced significantly tend to disclosure with high quality (Kasznik and Lew

1995). Business units need capital (whether through share or debt) and business units having high financial leverage tend to disclosure with high quality to enhance credit and capability of reliance of recorded accounting information and confront creditors and investors with risk and less uncertainty. This action helps companies achieve required debt and capital under favorable condition and therefore affect flow of capital distribution properly. Bushman & Smith (2001) claim units which have tendency to increasing capital through share or debt provides more qualitative information market about financial situation of business units for participants through which reduces capital cost and clarifies movement of capital distribution and future viewpoint about it.

Therefore Preston (1995) claims that in the direction of attempt for avoiding violation of contents of debt contract, financial crisis and bankruptcy, units having higher financial leverage may have opportunistic behavior and don't present financial statement units correctly and reliably. By contrast Frankl and Richard Henry (2006) found that business units having high financial leverage tend to present more reliable financial statements through which affect creditors. The contradicted findings approve that managerial behavior or potential opportunity of managers may be different and depend on economic situation and conditions and financial situation of business units. According to Watts quote (1993) legal necessities can be favorable propulsion for more profitable disclosure of information (Iatridis, 2011). Low quality of information disclosure and therefore informational asymmetry can be different due to opportunities of growth of business units and strategies of investment. Higher informational asymmetry and so more inconsistency in future cash flow can lead to acceptance of projects that shouldn't be accepted or rejecting projects that their acceptance led to the profit of business units. Similar deduction can be identified about growth opportunity of business units and information asymmetry. Pioterowski (2003) and Leoz (2004) found that units having growth opportunity tend to present information with quality. By contrast when a business unit leaves one of its subordinate units that have also proper growth, or when implementing projects are completed and so growth of business unit decreases, the quality of information disclosure increases. Business units that experience high growth may be for this reason that want to put unfavorable management performance or unfavorable investment projects far from investors and strengthen their future growth or sometimes for decreasing attentions and political expenses, disclose information with lower quality (the same reference).

NON-FINANCIAL FACTORS AFFECTING DISCLOSURE QUALITY

Business units having transactional share tend to higher disclosure through which investors and shareholders are able to observe and follow their decisions and activities. In fact, it leads to attraction of more investors and tendency of investors to investing in share in such companies (Bushee and Miller, 2005). This deduction can be applied in relationship with the number of transactional days or days with non-zero transaction volume. Logarithm of the number of higher distributed share shows that main part of possession of the company belongs to shareholders out of business units and insatiable tendency of investors to acquiring more information, forces business units to more qualitative disclosure of information (the same reference).

The point that business units having high disclosure quality experience more managerial changes, implies on this action that new managers tend to give more valuable information to investors and creditors to attract their reliance and show their managerial power to the market and through this method facilitate accessing available financial resources in the capital market for business units and reduce cost of supplying capital for business units.

Business units that are audited by high-ranking auditors, supply more qualitative information to the market. In fact, audited accounts by greater auditing institutes have been manipulated by lower probability and are less talented of important error and therefore credit and capability of higher reliance is shown (Bushman & Smith, 2001).

RESEARCH HYPOTHESIS

Hypothesis1: there is meaningful relationship between assets output and disclosure quality.

Hypothesis2: There is meaningful relationship between market value to book value of equity and disclosure quality.

Hypothesis3: There is meaningful relationship between ratio of debt to equity and disclosure quality.

Hypothesis4: there is meaningful relationship between ration of operational cash flow to total assets and disclosure quality.

Hypothesis5: There is meaningful relationship between number of transacted share to the number of distributed share and disclosure quality.

Hypothesis6: There is meaningful relationship between logarithm of number of pages of annual reports and disclosure quality.

Hypothesis7: There is meaningful relationship between changes in management and disclosure quality.

Hypothesis8: There is meaningful relationship between ration of number of days with non-zero transaction volume to number of total transactional days and disclosure quality.

MATERIAL AND METHODS

Because current research is considering the relationship between disclosure quality and financial and non-financial variables, so it is correlation type by sing regression model. Also regarding goal is a kind of applied research. Statistical society of current research includes all companied accepted in Tehran stock exchange (except investment companies, leasing, holding and banks) that become member of stock exchange until 2007 and are not exited from membership of stock exchange until the end of 2012. All statistical societies have been considered and observations that didn't have the following features were omitted :1) the end of companies financial year should be the end of **Esfand** 2)during considering period the company shouldn't have financial year change(2007-2012). 3) The company should be active. Regarding the mentioned condition, finally 184 companies have been chosen ass sample.

For testing first to fourth hypothesis of the research Logit model of No 1 and for testing fifth to eighth hypothesis logit model No 2 are used.

$$1. \quad AQ_{i,t} = a_0 + a_1 ROA_{i,t} + a_2 MVBV_{i,t} + a_3 TLSFU_{i,t} + a_4 OCF_{i,t} + a_5 LNA_{i,t} + a_6 ECN_{i,t} + a_7 DCN_{i,t} + a_8 \Delta E_{i,t} + \varepsilon_{i,t}$$

$$2. \quad AQ_{i,t} = a_0 + a_1 TV_{i,t} + a_2 PC_{i,t} + a_3 MC_{i,t} + a_4 D_{i,t} + a_5 SH_{i,t} + a_6 AU_{i,t} + e_{i,t}$$

Research variables:

Dependent variable: disclosure quality

In this study for evaluation disclosure study of companies the information resulted from ranking companies accepted in Tehran stock exchange will be used that these information are distributed by the organization of Tehran stock exchange. Ranking companies accepted in stock exchange is done based on obtained score in the view of disclosure quality and proper informing. Score of informing has been calculated based on the situation of their informing regarding capability of reliance and sending information on-time. Criteria of being on-time is calculated based on the time of sending information by the company(predicting income of each share, uncalculated quarterly financial statements, portfolio situation statement, assessment of auditor's opinion toward predicting each primitive and 6 month share and quarterly sixth month financial statements, audited or unaudited financial statements of the end of financial period and schedule of shareholders' profit) at determined levels at the instruction of information disclosure and regarding the degree of delay in sending information. The degree of fluctuations and changes in sending predictions and also differences among predicted amount and real audited performance are criteria of reliance in these calculations (report of ranking companies, organization of Tehran stock exchange).

In above models -AQ is an artificial variable for quality disclosure that for business units having high disclosure quality is a number and for units with low quality they choose zero number.

Independent variables:

Financial variables include the following cases:

ROA=rate of assets (result of dividing net profit to total asset), MVBV= ratio of market value to book value of equity (growth criteria), TLSFU= ration of total debt to equity

OCF= ration of operational cash flow to total assets

Other variables are controlling and are defined as below

LNA- natural logarithm of total assets, ECN= financial supply through share (if a company in mentioned financial year increases capital it is number 1 otherwise zero is chosen)

DCN- financial supply through debt (if a company in mentioned financial year supply has financial supply through facilities or loan the number 1 and otherwise zero is chosen)

ΔE = changes in net profit (difference of net profit at the end and beginning of period)

Main non-financial variables are explained as below

TV= ration of transacted share volume to distributed share

PC= logarithm of the number of pages of annual reports

MC= changes in management (if a company during financial year has the experience in management the number 1 and otherwise zero is belonged to it)

D= ration of the number of days with non-zero transaction volume to total transactional days

And variables:

SH= logarithm of the number of distributed share

AU= type of auditing institutes(if a company is audited by auditing organization or useful auditing number 1 and otherwise zero is chosen), is controlling variable of the model.

RESULTS AND DISCUSSION

Descriptive statistics:

table1: descriptive statistics of research variables

75%	Median	25%	Standard Deviation	Mean	Variable
1.000	0.500	0.000	0.500	0.500	<i>AQ</i>
0,166	0,89	0,033	0,139	0,105	<i>ROA</i>
2,694	1,424	0,79	106,511	8,586	<i>MVBV</i>
2,756	1,666	0,986	92,875	- 0,109	<i>TLSFU</i>
0,197	0,107	0,044	0,161	0,134	<i>OCF</i>
13,907	13,171	12,241	1,321	13,28	<i>LNA</i>
.	.	.	0,388	0,185	<i>ECN</i>
1	1	.	0,489	0,603	<i>DCN</i>
23494,25	1887	- 13624	358342	18271,42	<i>ΔE</i>
0.185	0.067	0.022	15,63	1.044	<i>TV</i>
3.850	3.664	3.497	0.271	3.680	<i>PC</i>
1.000	0.000	0.000	0.486	0.383	<i>MC</i>
0.776	0.533	0.257	0.286	0.511	<i>D</i>
19.161	18.303	17.592	1.323	18.398	<i>SH</i>
1.000	1.000	0.000	0.484	0.627	<i>AU</i>

Source: researcher's finding

Inferential statistics:

In above model zero and one is attributed to dependent variable therefore dependent variable is naturally a discrete variable that for estimating event of each level we need qualitative regression. Regression with discrete dependent variable has different types that regarding the nature of dependent variable it is determined. If dependent variable is two-dimensional Logistic regression is used for predicting. After fitting model meaningful test of coefficient is done and then hypothesis is tested.

In predicted models the amount of R^2 shows that what percent of total changes is devoted to itself change resulted from regression and there is between 0 and 1 and as it is closer to 1 denotes more power of the model. However about models that dependent variable is qualitative this amount is not calculated, because the level is discrete. Cox & Snell's R^2 , Nagelkerke's R^2 , McFadden's R^2 are such replacements that have been introduced for this subject. In this research McFadden's R^2 are used for the ability of predicting dependent variable by independent variable.

RESULTS

First to fourth hypothesis can be written in the form of H_0 and H_1 :

H_0 = there isn't meaningful relationship between assets output and disclosure quality

H_1 = there is meaningful relationship between asset output and disclosure quality

H_0 : there isn't meaningful relationship between market value to book value of equity and disclosure quality

H_1 = there is meaningful relationship between market value to book value of equity and disclosure quality

H_0 = there isn't meaningful relationship between ratio of debt to equity and disclosure quality.

H_1 = there is meaningful relationship between ration of debt to equity and disclosure quality.

H_0 = there isn't meaningful relationship between ratio of operational cash flow to total asset and disclosure quality.

H₁= there is meaningful relationship ration of operational cash flow to total asset and disclosure quality.

Table2:summary of regression model

<i>P – Value</i>	t-statistics	Standard deviation	Amount	Coefficient	Variable
0.070	1.814 *	0.718	1.302	α_0	Model fix
0.0001	6.210 ***	0.690	4.283	α_1	ROA
0.448	0.758	0.001	0.001	α_2	MVBV
0.789	0.268	0.001	0.0001	α_3	TLSFU
0.004	2.858 ***	0.539	1.541	α_4	OCF
0.003	-2.948 ***	0.054	-0.160	α_5	LNA
0.186	1.324	0.181	0.239	α_6	ECN
0.070	1.814 *	0.718	1.302	α_7	DCN
0.0001	6.210 ***	0.690	4.283	α_8	ΔE

*** Sig at 1%, ** sig at 5%, * sig at 10%

<i>P – Value</i>	statistic ΔLR	Model SD	r^2 Mack Fadden
0.0001	94.01	0.4740	0.3738

Source: researcher’s finding

Based on above cases regarding LR statistics and p-Value that devoted 0.0001 to itself, we can conclude that regression model at the level of 99% is meaningful that this subject denotes the total effect of independent variables on dependent variable.

Based on the result of above things variables of EOA and OCF is positive and meaningful at the level of 0.01% therefore in hypothesis of first and fourth H₀ is not approved and hypothesizes are confirmed.

However coefficient of variables of MVBV and TLSFU in none of meaningful levels, therefore H₀ is second and third hypothesis are approved and second and third hypothesis are not approved.

Coefficient variable of TLSFU is not meaningful in none of levels that is there isn’t meaningful relationship between disclosure quality and ration of debt to equity thus H₀ is approved and this hypothesis is not approved.

Finally regression model considered for testing this hypothesis is explained with the following variables:

$$AQ_{i,t} = 1,302 + 4.283ROA_{i,t} + 1.541 OCF_{i,t} - 0.16 LNA_{i,t} + 1.302 DCN_{i,t} + 4.283 \Delta E_{i,t} + \varepsilon_{i,t}$$

Hypothesis fifth to eighth can be written in the form of H₀ and H₁ in the following shape:

H₀: there isn’t meaningful relationship between ration of the number of transacted share to the distributed share and disclosure quality.

H₁: there is meaningful relationship between ration of the number of transacted share to the distributed share and disclosure quality.

H₀: there isn’t meaningful relationship between logarithm of the number of pages of annual report and disclosure quality.

H₁: there is meaningful relationship between logarithm of the number of pages of annual report and disclosure quality.

H₀: there isn’t meaningful relationship between changes in management and disclosure quality.

H₁: there is meaningful relationship between changes in management and disclosure quality.

H₀: there isn’t meaningful relationship between ration of number of days with volume of non-zero transaction to the total number of transactional days and disclosure quality.

H₁: there isn't meaningful relationship between ration of number of days with volume of non-zero transaction to the total number of transactional days and disclosure quality.

Table3: summary of the result of regression model

<i>P – Value</i>	t-statistics	SD	Amount	Coefficient	Variable
0.037	2.084 **	0.666	1.388	α_0	Model fix
0.226	-1.211	0.150	-0.181	α_1	<i>TV</i>
0.020	-2.325 **	0.185	-0.430	α_2	<i>PC</i>
0.0001	-3.521 ***	0.097	-0.341	α_3	<i>MC</i>
0.0001	3.776 ***	0.186	0.703	α_4	<i>D</i>
0.624	-0.491	0.176	-0.087	α_5	<i>SH</i>
0.593	-0.535	0.111	-0.059	α_6	<i>AU</i>

***Sig at 1%, ** sig at 5%level, * sig at 10% level

<i>P – Value</i>	statistics LR	Model SD	r^2 Mack Fadden
0.0001	33.686	0.4915	0.3330

Source: researcher's finding

Based on above cases regarding LR statistics and obtained p-value with the amount of 0.0001 regression model is meaningful that this subject denotes total effect of independent variables on dependent variable.

Coefficient of TV variable is not meaningful in each levels of certainty therefore H₀ hypothesis is approved and fifth hypothesis of the research isn't confirmed. Coefficient of variables of PC and MC is negative and meaningful and coefficient of variable D is positive, therefore H₀ hypothesis in hypothesis 6-8 has not been confirmed and these hypotheses are approved. Finally regression model considered for testing this hypothesis is defined by the following variables:

$$AQ_{i,t} = 1.388 - 0.430 PC_{i,t} - 0.341 MC_{i,t} + 0.703 D_{i,t} + \varepsilon_{i,t}$$

CONCLUSION

Investors for making useful economic decisions need qualitative information. Qualitative information can be defined as the need of consumer regarding reasonable and external user's perception. Quality of accounting information increases when increase of different accounting criteria limits management authority for reporting accounting amounts. Due to informational asymmetry between managers and other beneficiaries based on delegacy theory we expect managers manipulate profits; therefore disclosure quality is one concept that can help decrease of informational asymmetry and cause increase of quality of presented information. In this research this subject has been considered that whether financial and non-financial factors can affect qualitative level of presenting information or not? In considering financial factors, findings of the research showed that simultaneous to the increase of profitability in business unit, disclosure quality of information increases. Also the findings showed that units having more favorable performance have higher disclosure quality. It can be claimed that companies that their activities lead to higher profitability and are in proper situation regarding liquidity tend to more proper disclosure. One probable reason of applying such procedure is that managers of such companies by strengthening disclosure have the intention of displaying proper performance and getting reward and other personal benefits in the market of manager's specialty. Another reason can be acquiring fame in capital market and fallowing that easier financial supply for companies. The obtained results are uniform with the research of Iatridis (2011) and Setayesh *et al.* (2012) but it is against the result of research of BaniMahd and Mohseni Sharif (2010). In their research for a time period of one year 2007 they concluded that there isn't meaningful relationship between disclosure quality and output of assets.

According to the findings of research there hasn't been observed meaningful relationship between disclosure quality and degree of growth of business unit. In this relation the result isn't compatible with the findings of Setayesh *et al.*

(2012) and Iatridis (2011). Finally considering the relationship between disclosure quality and debt ratio to equity shows meaningful relationship between them. These findings are compatible with the research of BaniMahd and Mohseni Sharif (2010) but it is not compatible with the research of Malekian and Saghafi (1999). The result of considering the effect of non-financial variables on disclosure quality showed that there is meaningful relationship between the number of transacted share to the number of distributed share and disclosure quality. However the result of regression analysis denotes the negative meaningful relationship between the number of pages of annual report and disclosure quality, maybe public speculation is that annual report denotes higher quality in presenting information, yet such positive relationship hasn't been found between these two variables, maybe we can deduce that necessarily expanded annual report can't be the symbol of presenting useful information, probably as annual report presented by business unit is brief, business unit farther than any exaggeration and tendency to expanding annual report through unnecessary information, is brief way put necessary information to the consumers of information. High ration of number of transactional days to number of days with non-zero transaction volume denotes activeness of business unit in market. Findings denotes that units that are more active in market, have higher disclosure quality, probably due to this reason that decisions and performance of such units are fallowed and supervised by more people therefore business unit is done for attracting trust of investors with more qualitative disclosure. Finally the result of regression analysis showed business that experiences less changes in management supply more qualitative information to the market. In Iran there hasn't been found a research that considered the effect of special variables on disclosure quality but the findings is compatible with Iatridis (2011) research except in relationship with the number of transacted share.

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