Investigating the Effect of Production Competitive Market on Voluntary Divulgence Based on Herfindal-Hireshman and QTobin Models

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Abstract: As regards, divulgence has been considered as one of the most fundamental economical growth agents and divulgence criterion is different from one corporation to another. In this research with spot of competitive situation in market, relationship between production competitive structures and voluntary divulgence criterion in financial reports will be evaluated. Competitive pressure increase is one of the most important agents of the voluntary divulgence assumption. This research consists of two main parts: in the first part, the effect of production competitive market on voluntary divulgence criterion based on QTobin Model has been investigated. In the second part, the effect of production competitive market on voluntary divulgence criterion based on Herfindal-Hireshman Model has been evaluated. Research statistic population include corporations in Tehran price stock exchange, statistic sample after ethmoid sampling includes 635 corporations that have one quinquennial corporation year from 2010-2014. Research models have been used to analyze relationship between competition and divulgence criterion. Research methodology is applicational based on its aims and is descriptive, scaling, and cohesive based on its performance. Research conclusions indicate that increase in divulgence criterion will cause decrease in common stock cost. So, investments affect to invest in corporations which have more divulgence and less risk and this topic will be followed with a positive meaningful effect of production divulgence market on voluntary divulgence criterion.

Key words: Production competitive market, voluntary divulgence, Herfindal-Hireshman, Qtobin

INTRODUCTION

The existence of free efficient circuit of information is vital for each modern economic and axial information because this existence will cause optimized attribution of sources and economical growth. Based on Signaling Theory, corporations are competing to gain invest limit sources. A well name corporation for its financial reports will divulge more accurate information of its activities and has more power to attract asset because the corporation attracts investments' confidence. On time and reliable reports will help individuals to evaluate corporation's future view and this evaluation will cause the decreases of the investment risk, the expectance case of the output price and the asset cost.

It is a belief that competition will cause stagnant decrease in market and corporations are forced to continue their activities with higher performance and efficiency, so competition is like a motivation for innovation that will cause dynamism and economical development of society (Neckol, 1996). Different definitions of competition have been suggested but one comprehensive definition is: organization ability for durability in business, protection of organization assets, asset return and jobs 'assurance in future to increase market share, profit gain, increase price growth and remain in competitive stage for a long time (Akimova, 2000).

The main research topic is investigating the effect of competition in production market on voluntary divulgence criterion that can help managers in related decisions to voluntary politics of divulgence and financial reports, the clarification of the country economic information, and the decrease of the problems between managers and market.

Literature review: Lin *et al.* (2007), in their research concluded that corporations' inclination for voluntary divulgence of information with competition increase in production market would decrease. However, their conclusions displayed that the negative relationship of the competition with divulgence quality for strong motive corporations would become more in asset market. In other words, production competitive market and asset market motivations would play important roles in corporations' informative situation forming.

Shien (2013), investigated the effect of two competitions in market on voluntary divulgence criterion,

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research findings indicated that corporations have more inclinations to divulge information when competition is for the attraction of the existence capacity in asset market because corporations can decrease their asset costs in this way. But corporations want to divulge less private information to keep long duration competitive advantages when their competition is on production pricing in market. This findings indicated the effective voluntary divulgence of the profit-cost.

Teng (2011), based on corporations' sample in China Schengen stock market from 2003-2005 concluded that, the bases of the production market competition have two direct effects on divulgence quality governing of financial information. In this direct way, the quality of the information in very high and very low competitive levels would be in its best situation and would have average levels' decrease competition of divulgence quality. So, the effect of the competition governing would infer to the increase board's roles in the criterion gradation of the information divulgence.

Ghorbani investigated the competition relationship in the production market, board's combination and information divulgence quality with the use of 90 accepted corporations' information in price stock exchange from 1382-1388. Research conclusions, based on Herfindal-Hireshman indicator as the only competition variable and the use of Ligestic Regression, showed that competition in production market has a guideline effect and a meaningful U form relationship with information divulgence quality. However, governing effect indicated that board members' percentage don't have any meaningful relationships with divulgence quality and competition in production market wouldn't improve and amplify the relationship between these two variables.

Poorhaidari and Ghafarloo (1971) investigated corporations' production competition structures in Tehran Stock Exchange for 9 years duration from 1380-1388. Their research conclusions indicated that increase in competitive structure would cause more contingent conservatism proceedings. This research in its appropriate hypotheses form investigated five competitive indicators (substitution, sufficiency, demand content, numbers of the corporations that are industry members, entrance preventives to market, and concentration ratio), on contingent conservatism. Research findings showed that, there are meaningful reversed relationships between demand content and numbers of corporations that are industry members, concentration ratio and entrance preventives to market with contingent conservatism, however; the amount of this relationship about concentration ratio isn't too much.

Then, there is a reversed meaningful relationship between good's substitution and contingent conservatism.

Research hypotheses:
* Production competitive market effects on voluntary divulgence criterion based on QTobin indicator
* Production competitive market effects on voluntary divulgence criterion based on Herfindal-Hireshman indicator

MATERIALS AND METHODS

This research is pseudo experimental, based on its aims is applicational, based on its statistic method is analytical Regression. Research data gathering has been done in two steps. In the first step, library has been used for codification of research theoretical bases and in the second step bourse sites, corporations' financial information softwares and their audited financial statements have been used to gather slightly data. Data preparing process has been done by Excel environment and data analysis has been done by SPSS and Euvise software.

Research slightly population include accepted corporations in Tehran Price Stock Exchange. Research sampling is meaningful because corporations which owed following characteristics have been chosen:

* Corporations which have been active in bourse from 1388-1393
* Corporations which haven't had any investment and financial intermediaries except insurance corporations
* Corporations which have enough information to measure research variables

Because of productions' inequality and more corporations' production market, instead of all industries just categories of industry which are homogeneous have been used. Then, competition comparison sufficiency will increase.

So, choice of categories based on researches done by Poorhaidari and Ghafarloo (1971), to evaluate competitive atmosphere better those categories which include at least 3 categories have been investigated. Based on the foresaid limitations 127 corporations have been used for 6 years duration from 1388-1393.

Dependent variable (voluntary divulgence): To measure divulgence, checklist of divulgence cases has been used that includes 60 standards. If foresaid cases have been

divulged by corporation, score 1 will be get, in spite of that score zero will be get. If a case doesn't have capabilities of doing, it will be removed from the checklist. So, corporations' divulgence will be calculated based on the following divulgence indicator.

At first, all essential cases based on rules and provision such as accounting standard, bourse divulgence necessities and etc. should be parted from voluntary divulgence cases. Then for each one a separate indicator should be offered:

$$VDI = \sum_i^n = \frac{1VYi}{\sum_j^m = 1VTj}$$

where, VDI= Voluntary Divulgence Indicator.

$$\sum_j^n = 1VYi$$

is all voluntary cases that corporation has get score 1 from:

$$\sum_j^m = 1VTj$$

is all voluntary cases which corporation has get score one and zero from.

Independent variable

Herfindal-Hireshman indicator: This indicator will be received based on second power addition of market share of all active agencies in industry, a market which has HHI <0/010 would be competitive market and market with more than 0/018 HHI wouldn't be:

$$S_i = x_i / \sum_i^n 1x_i = HHI = \sum_i^k (S_i)^2$$

Where:
K = Numbers of the active agencies
S_i = Corporation market share of i
X_j = Corporation sale of j
i = Type of industry

QTobin indicator:

Qtobin = All assets with booking cost/(All debts with booking cost + All stock with market cost)

If indicator is more, more concentration and less competition will appear in industry and vice versa:

- Qtobbin = debts + mv/assets
- Debts = booking costs of debts
- MV = circuit market valence
- Assets = booking costs of all corporations' assets

Controlling variable: Controlling variables in research include:

Corporation's size (SIZE): Which is calculated based on natural Logarithm of absolute sale.

Lever (LEVER): That is calculated from the ratio of long durative debts to all the assets.

Market of Booking Valence (MKBV): That will be estimated from the ratio of booking valence collection of all assets and market cost of shareholders' rights minus booking valence of shareholders` rights to the booking valence of all assets.

Profitability (PROF): Its measure will be get from the ratio of absolute profit to all the assets.

Liquidity (LIQ): Which is estimated from the ratio of the flow assets to the flow of debts.

Hypotheses' regression models
First hypothesis model:

$$VDI_{it} = \beta_0 + \beta_1 QT_{it} + \beta_2 LEV_{it} + \beta_3 MKBV_{it} + \beta_4 PROFT_{it} + \beta_5 LIQ_{it} + \beta_6 SIZE_{it} + \varepsilon_{it}$$

Second hypothesis model:

$$VDI_{it} = \beta_0 + \beta_1 HHI_{it} + \beta_2 LEV_{it} + \beta_3 MBKV_{it} + \beta_4 PROF_{it} + \beta_5 LIQ_{it} + \beta_6 SIZE_{it} + \varepsilon_{it}$$

Where:
DI_{it} = i corporation divulgence indicator in t year
VDI_{it} = i corporation voluntary indicator in t year
MDI_{it} = i corporation mandatory indicator in t year
Qt_{it} = i corporation QTobin indicator in t year
HHI_{it} = i corporation Herfindal-Hireshman indicator in t year
LEV_{it} = i corporation lever in t year
$MKBV_{it}$ = i corporation market of booking valence in t year
LIQ_{it} = i corporation liquidity in t year
$PROF_{it}$ = i corporation profitability in t year
$SIZE_{it}$ = i corporation size in t year

Data analysis: To investigate research data, at first have been data described based on quantity implements in

Table 1: Conclusions of fixed effects' model related to first model

Estate	Fixed effects' model	Coefficients	Standard deviation	t-statistic	p-values	Research findings
First model (VDI)	QT	0/400	1/12	0/35	0/001	H_0 failed
	LEV	0/074	0/559	0/132	0/004	H_0 failed
	MKBV	2/703	1/250	2/162	0/001	H_0 failed
	PROF	0	0/054	-5/160	0/000	H_0 failed
	LIQ	0	0/047	-1/682	0/000	H_0 failed
	SIZE	0	0/116	-0/024	0/000	H_0 failed
	C	1/844	0/074	24/884	0/000	
	ε	0/237	0/207	8/499	0/237	

$R^2 = 0/459, 0/317$; DW = 2/110; F (Fisher) = 3/238 (Prob. = 0/000)

Table 2: Conclusion of fixed effect's model related to fourth model

Estate	Fixed effect's model	Coefficients	Standard deviation	t-statistic	p-values	Research conclusions
Second model (VDI)	HHI	0/576	0/236	2/439	0/015	H_0 failed
	LEV	0	0/147	-0/514	0/007	H_0 failed
	MKBV	0	0/316	-0/577	0/004	H_0 failed
	PROF	0	0/014	-2/135	0/003	H_0 failed
	LIQ	0/022	0/011	1/902	0/007	H_0 failed
	SIZE	0	0/030	-0/781	0/034	H_0 failed
	C	0/840	0/020	40/262	0/000	
	ε	17/295	2/614	6/616	0/000	

$R^2 = 0/026, 0/017$; DW = 2/316l; F (Fisher) = 2/843 (Prob. = 0/000)

descriptive statistic such as average, mode, standard deviation, and etc. Then hypotheses' test with the use of economic sample have been done. To clarify hypotheses' test methods, choice of combination regression and paneling data with fixed effects Chaw test (F limer) has been used. This test is based on two specification coefficients, whether specification coefficient of paneling data regression is meaningful more than sample specification coefficient or not. If conflation sample is valuable, everything is finished. If fixed effective model is valuable, we should test it in front of accidental effective model. So, Hasman test should be used. This test has been based on existence or inexistence of relationship between approximated regression error and dependent variables of formed sample. If this relationship existed, fixed effects' models will be accepted in spite of that accidental effects' sample should be accepted.

RESULTS AND DISCUSSION

Hypotheses analysis
First hypothesis: Competitive market based on QTobin indicator influences on voluntary divulgence criterion:

- H_o: competitive market based on QTobin indicator influences on voluntary divulgence criterion
- H_1: competitive market based on QTobin indicator doesn't influence on voluntary divulgence criterion

First hypothesis conclusions can be seen in Table 1. Meaningful level criterion of t-test is <0/05, so independent variable influences on dependent variable positively that competitive market based on QTobin indicator doesn't influence on voluntary divulgence criterion.

Second hypothesis: Competitive market based on Herfindal-Hireshman indicator influences on voluntary divulgence criterion:

- H_o: competitive market based on Herfindal-Hireshman indicator doesn't influence on voluntary divulgence criterion
- H_1: competitive market based on Herfindal-Hireshman influences on voluntary divulgence criterion

Fourth hypothesis conclusions can be seen in Table 2. Meaningful level of t-test is less than 0/05, so independent variable influences on dependent variable positively that competitive market based on Herfindal-Hireshman indicator influences on voluntary divulgence criterion.

CONCLUSION

Received conclusions of the hypotheses show that competitive market based on QTobin indicator influences on divulgence criterion. This research conclusions are related to Dastgir *et al.* (1382)'s and Lei (2010)'s researches that investigated the effect of mandatory divulgence criterion on common stock cost. In other words, investments have more inclination to invest in corporation that have more divulgence criterion or less risk. Based on competition strategic theory in production

market over divulgence based on profit cost balance is from information divulgence. It is a belief that decision about divulgence quantity and quality are based on existed inclinations in asset market and production market concerns. It is meant that each corporation's inclination in asset market will cause asset cost decrease and corporation cost increase. Corporation's concern in asset market may damage its competitive situation in production market. So, both markets and their conclusions in related to information divulgence are essential. So, these theories indicate that isolation and separation of production and asset markets from each other, no truly divulgence can be happened by corporations. When both markets use equal divulgence, divulgence quality increase will happen. For example, each corporation to increase its cost in asset market has inclination to show their profitability more than its reality, but it shouldn't be forgotten that this information will cause competitors' concern increase about future views and persuade competitors to produce more production. To prevent competitors from more production, the corporation has forebeared information divulgence optimistically and this topic can cause divulgence quality increase.

SUGGESTIONS

Some investors don't have enough information and aren't aware of existence corporations in economic. So, participation in risk is faulty and deficient by divulgence less known corporations can inform investors from their existence, develop in investors' views, improve participation in risk and decrease asset cost. It is suggested to active corporations' managers in competitive situations to try adjust market competitive pressure with voluntary guideline, lead and avoid change in financial reporting procedures. It is a suggestion for investors and asset market actives to treat board's independence as one of the most important organizational governing pillar and consider that mechanism will keep their advantages potentially.

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