

# The Market Factors of Influence Environmental Information Disclosure and Market Reactions

Tangmei Yuan\*

Linyi University

Department of Accounting, Linyi University  
Shandong, China

e-mail: yytmtm@126.com

\* Corresponding Author; Linyi University doctoral research start-up fund project funding(15LUBK09)

Zhoue He

Linyi University

Department of Accounting, Linyi University  
Shandong, China

e-mail: Hezhoue@lyu.edu.cn

**Abstract—In order to investigate the market factors of influence environmental information disclosure and market reactions. This paper use Chinese all A-share listed companies of main board market in 2012 as samples, this paper research conclusion indicate that: (1) The higher the market value, the higher tradable shares, and the higher the institutional investor shareholding of listed companies will be more and better disclosure of environmental information. indicate that under the condition of the voluntary disclosure of environmental information, market factors are the main reasons for environmental information disclosure. (2) The listed companies environmental information disclosure behavior index and disclosure quality index are all significantly positive with the company's next seasonal added value. In short, Capital market response strongly to the environmental information disclosure.**

**Keywords-Environmental Information Disclosure; Institutional Investors; Market Value; Tradable Share; Added Value.**

## I. INTRODUCTION

Enterprise is the direct creator of social wealth, also is main producers of the environment pollution, therefore, environmental pollution governance requires enterprises actively participate in. Enterprise full disclosure of environmental information, it is the precondition of environmental governance, is also the important way that investors understand company and important reference for investment decisions. Accounting information usually have certain information content and value for investors, and different types of information disclosure has a different influence on stock prices and stock trading volume (Wang Yuetang etc., 2001). At the same time, the quality and level of the environmental information disclosure can reflect the corporate implementation of social responsibility. So, strengthen the environmental information disclosure research has important theoretical and practical significance. This article with all of the 2012 a-share listed companies as research samples, in-depth analysis of the influence market factors of corporate environmental information disclosure and market reaction,

the targeted facilitate is to promote the continuous improvement of enterprise environmental information disclosure.

## II. LITERATURE REVIEW

Foreign research on environmental information disclosure originated the social responsibility information disclosure in the 1940s, become a research hotspot after 70s. In the cause of the environmental information disclosure, previous scholars divided it into two aspects to study: companies choose active disclosure of environmental information disclosure and the interference factors. The causes of companies choose to take initiative and proactivity to disclose environmental information are to avoid political cost, prevent reputational damage and fulfill social responsibility, etc. Maltby (2004) research shows that: the enterprise can show their special and important value through the environmental information disclosure. So enterprises actively improve its value to society not only response to the demand of the society.

Interference factors of corporate disclosure of environmental information mainly includes the industry sensitivity(Comier et al, 2005; Frost, 2007), external control(Porteiro, 2008)<sup>[1]</sup>, company size, financial condition, debt levels, and corporate governance mechanism. (1) the existing study consensus that industry factors affect the enterprise's environmental information disclosure (Cormier & Gordon, 2001)<sup>[2]</sup>. Halme & Huse (1997)<sup>[3]</sup> studied the European countries, such as Sweden, Spain, Finland, Norway, environmental information disclosure situation, found that the industry category is a significant influence factor on environmental disclosure. (2) Dierkes & Coppock(1978)<sup>[4]</sup>; Eng & Mak(2003)<sup>[5]</sup>; Clarkson et al (2008)<sup>[6]</sup> research found that there are positive relationship between enterprise scale and the level of environmental information disclosure. (3) the existing research do not have a unified relationship between the company's financial position, debt level and environmental information disclosure. Cormier & Gordon(2001)<sup>[2]</sup>、 Ahmad et al(2003)<sup>[7]</sup>、 Maria & Jay(2006) found that companies performance level was positively related to the

environment information disclosure. However, Freedman & Jaggi (1982), Ingram & Frazier (1980), research drawn the opposite conclusion. Ferguson (2002)<sup>[8]</sup>, Clarkson et al(2008)<sup>[6]</sup> suggests that there are positive correlation between the debt level and environmental information disclosure, and Jens - en, Meek, and Gray research conclusion is on the contrary. (4) Halme & Huse(1997)<sup>[3]</sup> found that ownership structure has a significant influence on environmental disclosure. Comier et al (2005) found that the stock risk, equity structure affects the quality of environmental information disclosure. Brammer & Pavelin(2006)<sup>[9]</sup> suggests that equity concentration is negatively related to the quality of environmental information disclosure. El-Gazzar(2003) found that institutional investors were positively correlated with environmental accounting information disclosure level.

Chinese research have showed that industry factors, external pressure, the company size has a significant influence on environmental information disclosure; The company's debt level has little influence on environmental information disclosure. And corporate performance although has impact on environmental information disclosure, but have not a unified direction; Chinese research result is on the contrary to the overseas research conclusion for ownership structure influence environmental information disclosure. the research result is not sure for stock market performance, business performance, joining together of two position of chairman and general manager influence on environmental information disclosure; Research of capital markets reaction for the environmental information disclosure also is not sufficient, there is still no exact significant conclusions. Thus in this paper, we will to do further research on market factors of influence environmental information disclosure and market reactions.

### III. THEORY ANALYSIS

#### A. Theory analysis

The theory, used to interpret environmental information disclosure motivation and market reaction, are mainly fiduciary duty theory, external pressure theory, voluntary disclosure and signaling hypothesis, and modern behavior finance theory, etc.

##### 1) The fiduciary duty theory.

American scholar, John maresca regard that the enterprise is used to create wealth, But companies should be responsible during create wealth process, to ensure that the entire process would be to benefit the whole society, Companies are not only responsible for its owners and shareholders, also deal with more responsible for the public, the international community and the world. At present, the theoretical perspectives is relatively popular in the accounting theory field,

Such as Brenton Fielder and Glen Lehman say that, in the *Accounting, Fiduciary duty, and environment factors*, environmental information should be open, so that other people can access to these information, and to evaluate it. The company, as one member of social, have a responsibility to consider environmental factors in the long-term investment decisions, It also has responsibility to provide the environmental information to other members of society.

##### 2) External pressure theory.

External pressure theory argues that enterprise environmental information disclosure is due to the pressure from outside. Enterprises external pressure in the aspect of environmental information disclosure can be divided into two aspects: one pressure is come from the government; the second pressure is come from social public. Generally speaking, the former is achieved by the form of a series of laws and regulations promulgated, it is a kind of direct pressure. Companies hope that public thinks its activities are legal through the activities of the environmental information disclosure, and to relieve the enterprise social pressure(Patten, 2000) ; While the latter would be implemented by public opinion or market behavior, It is a kind of indirect pressure. Under the theory of social public pressure, if enterprise mainly interested party lose confidence in corporate performance, they can take back their legitimacy power, such as customers stop buying the product, shareholders sell stocks, government stop subsidies or fines, and environmentalists make complaint against,etc.

##### 3) The voluntary disclosure and the signaling hypothesis.

Voluntary disclosure theory regard that, although external pressure theory has certain reasonable and persuasive, but it does not explain enterprise voluntary disclosure of environmental information. This view think that inadequate disclosure of corporate information can discount enterprise investment value for the information users, Even list it in the worst, it would do more harm to the enterprise financing and the future development. Signal transmission is used to solve a series of problems caused by information asymmetry problem, Such as adverse selection problem. When a information is not timely disclosed, investors tend to think of it as a bad news. In order to avoid the occurrence of adverse selection problem, companies with "good news" more willing to take the initiative to disclose information, separate himself apart from the "bad news" enterprise (Dye, 1985; Verrecchia, 1983). Maltby(2004) research shows that the enterprise can show its special and important value through the social environment information disclosure. So enterprise is not only in social pressure to disclosure information, in order to show its not the worst, at the same time, in order to avoid the information user make a bad guess in the case of lack information, willing to take the initiative to open more information. In addition, the holding company's managers have incentive to signal transfer undervalue through voluntary disclosure, make their stock is worth more (Healy & palequ, 2001).

##### 4) The modern behavioral finance theory.

The modern behavioral finance theory, basis on the effective financial market theory, using cognitive psychology analysis investor behavior, is important theory to effective explain the investor behavior. The theory regard that human economic behavior under the influence of psychological factors, such as confidence, remorse, experiences, feelings, attitudes, opinions, attention and expectation, etc. Changing people's expectations and market decision-making behavior. Can be used to explain the investors market reaction for information disclosure. Chun wang and Xu Longbing (2009), the Long Yuee(2010) argues that investor confidence, as investors' specific

psychological phenomenon, will affect the company stock trading price and trading volume through the investor beliefs and behavior change, and thus affect the value of the company.

### B. Research hypothesis put forward

Based on the above theory and previous research, this paper put forward research hypothesis from the following several aspects respectively, to further examine environmental information disclosure market influencing factors and the market reaction.

#### 1) The enterprise market value

According to the voluntary disclosure theory and signaling hypothesis, "Inadequate disclosure of corporate information can make the information users to discount enterprise investment value, Even in its list of the worst, It was a great harm to the enterprise financing and the future development. value maximization is One of the enterprise goal, The listed company will be more focus on the enterprise value in order to highlight the different with other companies in a certain extent, The higher enterprise value the stakeholders may be put more money into it's business. Enterprise value is the business wealth of many years operation, enterprises are willing to open more environmental information in order to maintain the accumulated wealth, and in order to avoid the information users make a bad guess in the case of lacking information. Thus put forward the following hypothesis :

H1: The environment information disclosure is positively related with the market value

#### 2) The proportion of tradable share

According to the external pressure theory, the social public achieve the pressure on the company by public opinion or market behavior. When a company created value does not agree with the value of social identity, The legitimacy of companies suffered threat from actual or potential. When tradable share, lose confidence in corporate performance, as the main stakeholders of listed companies, tradable shares can bring a lot of pressure to the financing of listed companies through undersell company's shares or sales resistance. The higher tradable share proportion of listed companies, the higher pressure put on listed companies to disclose more environmental information. Therefore put forward:

H2: The proportion of tradable share is positively related to the environment information disclosure.

#### 3) The institutional investors holding

El-Gazzar (2003) empirical study found that institutional investors holding was positively related to the environment accounting information disclosure. While Huang Jun and chun-na zhou (2012), research results show that the institutional investors holding have not related with environmental information disclosure level. In fact, institutional investors have incentive to actively monitor the company management(Pound,1988; Shleifer & Vishney, 1986)<sup>[10]</sup>. Maug (1998)<sup>[11]</sup> believe that the lack of marketability makes institutional investors turn into long-term investors, and then forcing them to pay close attention to the enterprise long-term profitability rather than short-term gains, to monitor the company's management in order to increase the company value(Saunders et al., 2006<sup>[12]</sup>; Mitra, 2002<sup>[13]</sup>; Chung et al., 2002)<sup>[14]</sup>. Because of compared with other natural persons,

institutional investors is a large investors, have more experienced and have a plenty of resources, as well as have more relevant professional knowledge to monitor the company management. Seek to maximize yield as the desire of the institutional investors, also give enterprise managers greater external pressure. As rational investors, institutional investors in China should be able to effectively to promote corporate disclosing environmental information. Therefore put forward:

H3: institutional investors holding is positively related to the environment information disclosure.

#### 4) The market reaction of environmental information disclosure.

In today's increasingly prominent environmental problem in China, investors and other stakeholders have started to pay close attention to the environmental protection, Environmental information disclosure quality and disclosure level can reflect the corporate implementation of social environment responsibility. According to the modern behavioral finance theory, the company's disclosure of environmental information must have certain information content for investors, changing people's expectations and market decision-making behavior, affect stock market price and trading volume, and thus affect the company value. Therefore put forward:

H4: Environmental information disclosure are positive related to the added market value of listed companies.

### C. Variable selection and measurement

Environmental information disclosure index selection and measurement. In order to comprehensive and effective reflect environmental information disclosure and disclosure degree, this paper choose three index to measure environmental information disclosure of listed companies: (1)Whether disclosure of environmental information (Disc), (2)Disclosure quantity index of environmental information (EDI<sub>1</sub>), (3)Disclosure quality index of environmental information (EDI<sub>2</sub>) .

(1)Whether disclosure of environmental information index— Disc(disclosure),is a dummy variable, Whether through the disclosure of environmental information to the assignment. Company disclosure of environmental information ,assignment 1, otherwise assigned a value of 0. (2)Disclosure quantity index of environmental information — EDI<sub>1</sub>, index assignment according to the number of entries of environmental information disclosure, each of entries of the enterprise environment information disclosure has 0.01 points, a summary score as environmental information disclosure quantity index. In 2012, the enterprise environmental information disclosure items only one company more than 100 entries, so the limited environmental accounting information disclosure index is the highest score of 1.

Quantity index's calculation formula is:

$$\text{EDI}_1 = \text{The actual number disclosure items} \times 0.01$$

(3)Disclosure quality index of environmental information—EDI<sub>2</sub>. Environmental information disclosure index calculated by means of weighted average. Based on the experience of the predecessors, using content analysis, each entries of enterprise environment information disclosure can be divided into quantitative and qualitative description, assuming the qualitative and quantitative information have the same effect for investors. Each index

adopt 0, 0.01, 0.02 as grading standards: If company has not disclosed any one entries of environment information, it's score is 0; If the entry has only disclosed qualitative information not quantitative information, it's score is 0.01; If the entry has both disclosed qualitative information and quantitative information, it's score is 0.02. Sum up each entry scores of a company, get the company's environmental information disclosure quality level index score, it is the company's quality index of environmental information disclosure. In 2012, only three Chinese enterprises' environmental information disclosure score more than 1 score, Therefore limit the highest score is 1 minute, more than 1 minute, calculated according to 1 score.Quality index's calculation formula is:

$$\text{EDI}_2 = \sum \text{Qualitative disclosure item number} \times 0.01 + \sum \text{both qualitative and quantitative disclosure item number} \times 0.02$$

The choice of control variables. Research of scholars both at home and abroad agree that the company size, debt levels and types of listed companies will affect the enterprise's environmental information disclosure, In this study, we control them when verify the environmental information disclosure motivation and other influence factors. All the index and the index connotation explanation used in this paper listed in table 1.

TABLE I. VARIABLES AND VARIABLE DEFINITION

variables	variables definition
Disc	= Disclosure environmental information assignment 1, otherwise the value 0. indicate companies disclose environmental information or not.
EDI <sub>1</sub>	= Sum up environmental information disclosure entry score, reaction company disclosure of environmental information content quantity.
EDI <sub>2</sub>	= weighting value of each entries content(adopt 0、0.01、0.02 standard for evaluation), reaction company disclosure of environmental information content quality.
MV	= The market value of listed companies, standardized by total assets.
△MVS	= The stock market value of listed company value compared with the previous quarter in the third quarter of 2013, standardized by total assets.
TDSH	= Proportion of tradable share
ROA	= Return on assets
INST	= Proportion of institutional investor shareholding
Top1	= proportion of the largest shareholder share
CEOD	= Joining together of chairman and general manager two job is 1, otherwise 0.
Size	= natural logarithm of total assets
Lev	= Debt level
ID	= industry dummy variable
t	= 2012
ε	= error term

#### D. Research model

Reference to previous research model, and according to the increase of variables this study, designed the following regression model to verify the above hypothesis:

$$\begin{aligned} \text{EDI}_{it} = & a_0 + a_1 \text{MV}_{it} + a_2 \text{ROA}_{it} + a_3 \text{LTS}_{it} + a_4 \text{INST}_{it} \\ & + a_5 \text{Top1}_{it} + a_6 \text{CEOD}_{it} + a_7 \text{Size}_{it} + a_8 \text{Lev}_{it} + \sum \lambda_j \text{ID}_j + \varepsilon \end{aligned} \quad (\text{Model 1})$$

$$\Delta \text{MVS}_{it+1} = \beta_0 + \beta_1 \text{EDI}_{it} + \beta_2 \text{Size}_{it} + \beta_3 \text{Lev}_{it} + \sum \gamma_j \text{IND}_j + \varepsilon; \quad (\text{Model 2})$$

Where, EDI<sub>it</sub> is the index of listed companies Environmental information disclosure, choose Disc; EDI<sub>1</sub>; EDI<sub>2</sub> three variables to reflect respectively.

#### IV. THE SAMPLE DATA

##### A. sample selection criteria and data sources

This paper selects 2012 A-share listed companies in the Shanghai and Shenzhen stock exchange as the overall sample, then, deletes the not complete data companies and extreme value companies, the final samples is 2098 companies. This study of financial data and market value index derived from the CSMAR database, The environmental information disclosure data is obtained by Manual sorting according to the "corporate social responsibility report" in CSMAR database; Institutional investors holding data taken from Wind database.

##### B. Descriptive statistics

Table 2 shows the descriptive statistics result of all samples. The mean of environmental information disclosure index are 0.190,0.016,0.030 respectively in 2012. Proportion of disclosure environmental information companies is only 19%, and there are larger differences in environmental information disclosure level between differences enterprises. The mean of △MV3 is 0.2937 in the third quarter of 2013, indicate that the stock market is active in the next quarter of environmental information disclosure in 2012.

TABLE II. ALL SAMPLES DESCRIPTIVE STATISTICS

	minimum	maximum	mean	standard deviation	variance
Disc	0	1	0.190	0.395	0.156
EDI <sub>1</sub>	0	1	0.016	0.056	0.003
EDI <sub>2</sub>	0	1	0.030	0.100	0.01
MV	0.283	172.493	1.658	4.241	17.986
△MV3	-3.9149	16.2768	0.2937	0.6928	0.462
INST	0	0.981	0.272	0.265	0.07
LTS	0.038	1.000	0.741	0.287	0.082
ROA	-1.988	2.312	0.039	0.112	0.013
TOP1	0.022	0.894	0.368	0.161	0.026
CEOD	0.000	1.000	0.210	0.410	0.168
Size	15.729	30.496	22.056	1.480	2.19
LEV	0.016	1.897	0.476	0.233	0.054

#### V. REGRESSION RESULTS AND ANALYSIS

Model 1 regression results, H1, H2, H3 verification

For further analysis of the influencing factors of environmental information disclosure, regression the proposed model 1and the results are shown in table 4. It can be seen from the table 3: (1) the market value of listed companies, the proportion of tradable shares, institutional investor shareholding ratio and environmental information disclosure of the three indexes have all positive correlation in 1% significant level.

This suggests that the higher the listed companies market value the more willing to disclose environmental accounting information, in order to increase the environmental information transparency; The greater the proportion of tradable share the more disclosure of

environmental information; Institutional investor shareholding concentration would encourage managers to disclose more environmental accounting information. The results agree with previous view that institutional investors plays supervision role in company, That is to say, institutional investors can affect enterprise environmental information disclosure. Therefore hypothesis H1, H2, H3 be validated.

**Control variables:** Company size have all positive correlation with three environmental accounting information disclosure level indexes at 1% significant level, This conclusion are consistent with previous research. Company debt levels only has significant correlation with one of the environmental information disclosure index (Disc); it have not significant correlation with both quantity index and quality index. This does not agree with foreign mainstream view, but you can explain it using Jiang L.F.(2009) research conclusion. Company operating performance, the first big shareholder's holding, Chairman and general manager two position joining together all have not significant correlation with three environmental information disclosure index. Indicate that they have not significant effect on the environmental information disclosure of listed companies.

TABLE III. THE REGRESSION RESULTS OF MODEL 1

	Disc		EDI <sub>1</sub>		EDI <sub>2</sub>		
	B	t(p)	B	t(p)	B	t(p)	
intercept	- 2.767	-17.792 (0.000)***	- 0.588	-14.272 (0.000)***	- 0.312	-13.266 (0.000)***	
MV	0.006	3.021 (0.003)***	0.001	2.694 (0.007)***	0.001	2.449 (0.010)***	
LTS	0.108	3.581 (0.000)***	0.013	1.564 (0.098)*	0.008	1.671 (0.095)*	
INST	0.136	4.221 (0.000)***	0.026	3.108 (0.002)***	0.014	2.833 (0.005)***	
ROA	- 0.003	-0.039 -0.969	- 0.008	-0.448 -0.654	- 0.004	-0.379 -0.705	
TOP1	0.017	0.316 -0.752	0.015	1.042 -0.298	0.009	1.074 -0.283	
CEOD	- 0.027	-1.4 -0.162	- 0.004	-0.768 -0.442	- 0.003	-0.934 -0.351	
Size	0.129	18.338 (0.000)***	0.026	14.086 (0.000)***	0.014	13.061 (0.000)***	
LEV	- 0.143	-3.621 (0.000)***	-0.01	-0.947 -0.344	- 0.007	-1.128 -0.259	
ID	Control		Control		Control		
AdjR2	0.237		0.196		0.145		
F(p)	29.393(0.000)		19.576(0.000)		16.51(0.000)		
VIF	1.696		1.696		1.696		

Note: 1) Model:  $\Delta MV_{it} = \alpha_0 + \alpha_1 MV_{it} + \alpha_2 ROA_{it} + \alpha_3 LTS_{it}$   
 $+ \alpha_4 INST_{it} + \alpha_5 TOP1_{it} + \alpha_6 CEOD_{it} + \alpha_7 Size_{it} + \alpha_8 Lev_{it} + \sum \lambda_j ID_j + \epsilon$ ; 2)\*\*\*, \*\* and\* is 1%, 5% and 10% significant level.

#### A. Regression results of model 2 - H4 be verified

From table 4 can be seen: (1) The listed companies environmental information disclosure behavior index is

significantly positive with the company's next seasonal added value at 5% level. This suggests that the listed company disclosure of environmental information compared with the failure to disclose environmental information listed company, could improve the market value of listed companies. (2) The listed companies environmental information quantitative index and disclosure quality index are all significantly positive with the company's next seasonal added value at 5% level. In short, Capital market response strongly to the environmental information disclosure. This from another Angle shows that environmental information disclosure quality of listed companies can more greatly improve the listed companies market value in the period of stock market active. Consistent with our expectations, hypothesis 4 is verified.

TABLE IV. REGRESSION RESULTS OF MODEL 2

	$\Delta MV3$		$\Delta MV3$		$\Delta MV3$		
	inter	3.923***	inter	3.865***	Inter	3.895***	
		-14.179		-14.491		-14.496	
Disc	0.085**		EDI <sub>1</sub>	0.566**	EDI <sub>2</sub>	0.352**	
		-2.092		-2.095		-2.284	
Size	-0.15***		Size	-0.147***	Size	-0.148***	
		9-11.693)		(-11.959)		(-11.982)	
LEV	0.046		LEV	0.04	LEV	0.039	
		-0.663		-0.576		-0.569	
IND	Control		IND	Control	IND	Control	
Adj R2		0.131		0.131		0.131	
F(P)		19.585(0.000)		19.586(0.000)		19.643(0.000)	
VIF		1.655		1.655		1.655	
N		2098		2098		2098	

Note: 1) Model:  $\Delta MV_{it+1} = \beta_0 + \beta_1 EDI_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it}$   
 $+ \sum \gamma_j IND_j + \epsilon$ ; 2)\*\*\*, \*\* and\* is 1%, 5% and 10% significant level.

#### VI. ROBUST TEST

In order to test the reliability of above conclusion, (1) this paper have done robustness test on the three significant impact indexes: Get rid of various indicators that have no significant effect on environmental information disclosure, only use the company size, debt levels and industry type as control variables, then do regression of market value, the proportion of tradable shares and institutional investors, the regression results are shown in table 5. The conclusion is very similar in table 5 and table 3, Especially the tradable share has more

significantly influence on environmental information disclosure in table 5 than table 3. The three market factors, market value, the current ratio and the influence of institutional investors has good robustness on influence EDI. (2) use Tobin Q instead of the added market value of

listed companies to do regression, can be gain the same results as the table 4, indicate that this paper analysis result of the reflection of capital market for disclosed environmental information also has good robustness. Due to the limitation of space to omit the regression results.

TABLE V. ROBUSTNESS TEST OF THE INFLUENCING FACTORS

DV	Disc	Disc	Disc	EDI <sub>1</sub>	EDI <sub>1</sub>	EDI <sub>1</sub>	EDI <sub>2</sub>	EDI <sub>2</sub>	EDI <sub>2</sub>
inter	-2.881***	-2.874***	-2.541***	-0.612***	-0.598***	-0.544***	-0.324***	-0.318***	-0.288***
MV	0.007***			0.002***			0.001***		
LTSH		0.148***			0.019**			0.011***	
INST			0.176***			0.033***			0.018***
Size	0.139***	0.135***	0.121***	0.029***	0.028***	0.025***	0.015***	0.015***	0.013***
LEV	-0.106***	-0.15***	-0.082**	-0.007	-0.011	-0.002	-0.005	-0.007	-0.002
ID	control	Control	Control	control	Control	Control	control	Control	Control
AdjR2	0.222	0.227	0.23	0.164	0.163	0.167	0.14	0.14	0.143
F	36.273***	37.322***	37.678***	25.195***	24.938***	25.667***	21.153***	21.022***	21.573***
MVIF	1.591	1.495	1.638	1.591	1.495	1.638	1.591	1.495	1.638

Note: 1) Model:  $EDI_{it} = a_0 + a_1 \text{Disc} + a_k \text{Control} + \varepsilon$ ; 2)\*\*\*, \*\* and\* is 1%, 5% and 10% significant level.

## VII. RESEARCH CONCLUSIONS AND CONTRIBUTIONS

This paper inspects the market factors of influence environmental information disclosure and market reactions. The research gain the following conclusions: (1) Institutional investors, market value, tradable share proportion have significant positive effect on environmental information disclosure of listed companies. Listed companies with higher the market value, the higher tradable shares, and the higher the institutional investor shareholding will be more and better disclosure of environmental information. indicate that under the condition of the voluntary disclosure of environmental information, market factors are the main reasons for environmental information disclosure. (2) The listed companies environmental information disclosure behavior index and disclosure quality index are all significantly positive with the company's next seasonal added value. Indicate that environmental information disclosure has significantly increased the value of the company. Capital market response strongly to the environmental information disclosure. Environmental information disclosure behavior and disclosure quality played the role of market mechanism, and exerted positive influence on investors decision-making and company's market value in a certain extent. This article contribution mainly expression: First, institutional investors, the company's market value and tradable share have significant positive effect on the enterprise environment accounting information disclosure, this enrich the academic achievements of environmental information disclosure influencing factors research. Second, the higher environmental information disclosure and disclosure quality level, the higher added market value, which is beneficial to promote enterprise voluntary disclosing environmental information.

cormier d, gordon i m. An examination of social and environmental reporting strategies[j].accounting auditing & accountability journal, 2001, vol. 14(5):587-616.

- [2] Halme m, huse m. The influence of corporate governance, industry and country factors on environmental reporting[j]. Scandinavian journal of management, 1997,13(2):137-157.
- [3] Dierkes m, coppock r. Europe tries the corporate social report[j]. Business and society review, 1978,16:21-24.
- [4] Eng l l, mak y t. Corporate governance and voluntary disclosure[j]. Journal of accounting and policy, 2003,22(4):325–345.
- [5] Clarkson p m, li y, richardson g d, vasvari f p. Revisiting the relation between environmental performance and environmental disclosure: an empirical analysis accounting[j].organizations and society, 2008,33(4/5): 303-327.
- [6] Ahmad z, hassan s, mohammad j. Determinant of environmental reporting in malaysia[j].international journal of business studies, 2003, 11(1): 69-90.
- [7] Ferguson l l. Voluntary disclosure by state-owned enterprises listed on the stock exchange of hong kong[j].journal of international financial management and accounting, 2002,13:125-151.
- [8] Brammer s j, Pavelin s. Voluntary environmental disclosures by large uk companies[j]. Journal of business finance & accounting, 2006,33(7): 1168-1188.
- [9] Shleifer a, vishny r. Large shareholders and corporate control[j]. Journal of political and economics , 1986, 94:461–88.
- [10] Maug e. Large shareholders as monitors: is there a trade-off between liquidity and control?[j].the journal of finance, 1998, 33(1):65–98.
- [11] Saunders a, ivashina v, nair v b, massoud n, stover r. Bank debt and corporate governance[c].efa 2004 maastricht meetings paper, no. 4601, 2006.
- [12] Mitra s. The impact of institutional stock ownership on a firm's earnings management practice: an empirical investigation[d]. Unpublished dissertation, louisiana state university, 2002.
- [13] Chung r, firth m, kim j b. Institutional monitoring and opportunistic earnings management[j].journal of corporate finance, 2002, 8:29-48.

## REFERENCES

- [1] Porteiro n. Pressure groups and experts in environmental regulation[j]. Journal of economic behavior & organization, 2008, 65(1):156-175.