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Voluntary Disclosure in Turkey: A Study on Firms Listed in Istanbul Stock Exchange (ISE)

Ahmet Ağca*, Şerife Önder**

Abstract

Voluntary disclosure in accounting is disclosure of information which exceeds the mandatory information limits in terms of content or amount as decided by the management of the firm. The purpose of this study is to reveal voluntary disclosure levels and factors affecting voluntary disclosure levels for Turkish firms listed in Istanbul Stock Exchange in 2003. The study contains 51 firms from various sectors excluding banking and insurance. In this study firstly we checked the disclosure level for sectoral groups, namely Food, Construction and the Other (firms in the print-publishing, electronics and technology and logistics and transport sectors). The "Other" group has the highest level of voluntary disclosure in terms of Strategic Information and Non-financial information, while the "Food" group has the highest level of voluntary disclosure in terms of Financial Information and Total Information. Secondly, we used Ordinary Least Squares (OLS) estimation technique to check the impacts of *Firm Size*, *Leverage*, *Auditor*, *Ownership Structure*, *Profitability*, and *Multi-nationality* on the voluntary disclosure. According to estimation results, *Profitability* and *Firm Size* variables are significant for the "Strategic Info" model; *Auditor* and *Firm Size* variables are significant for the "Financial Info" model; leverage variable is significant for the "Non-Financial Info" model; and *Auditor*, *Profitability*, and *Firm Size* variables are significant for the "Total Disclosure" model.

Key words: Disclosure, Voluntary Disclosure, Istanbul Stock Exchange.

JEL Classification: M41.

1. Introduction

In the accounting literature, 'disclosure' is defined as informing the public by financial statements of the firm. Disclosure comprises the last stage of accounting process; information regarding the financial activities collected by the accounting department is firstly processed and then summarized in a way in which it represent the financial situation and results of financial activities to be shared with the related parties. The content, amount and format of the information which will be disclosed to the public by the accounting department are governed by the authority (ies) who regulate the accountancy laws and regulations for that particular country. The disclosure of information within the identified minimum limits is called as 'mandatory disclosure' and any disclosure of information which exceeds these limits in terms of content or amount as decided by the management of the firm is called as 'voluntary disclosure'.

In order to see how voluntary disclosure of information to the public differs from mandatory disclosure within the scope of accounting, the concept of 'mandatory disclosure' of information must be closely examined. In the simplest terms, mandatory disclosure is the rules which allow equal access to basic information (Simon et al., 2001, 139). In mandatory disclosure, the information which firms must necessarily disclose, in which form, to whom and when they should be disclosed is defined by regulations (Durukan, 2003, 137). Voluntary disclosure has been defined as "disclosures in excess of requirements representing free choices on the part of company management to provide accounting and other information deemed relevant to decision needs of users of their annual reports" (Meek et al., 1995, 555). Disclosures such as these represent the free choice of the management of the firm. The management decides which information needs to be disclosed and also determines on how relevant is the information to the person who will use it to make decisions.

Voluntary disclosure is an issue which has come into the forefront and attracted much interest in accounting literature in recent times. What lies behind this interest is the aim to identify the factors which underpin the factors affecting voluntary disclosure of information by the firms to inform the decision makers about financial information and those who prepare and use this information.

The majority of investigations conducted regarding voluntary disclosure have been empirical studies. Those studies examine the characteristics of firms which voluntarily disclose information and factors affecting voluntary disclosure. Most of studies are related to developed western countries, while little attention is given other than developed western countries. The first study regarding which factors were influential on firms' voluntary disclosure was conducted by Firth in 1979. In this study, Firth attempted to identify the voluntary disclosure level of 180 firms (Ding et al., 2004, 16). It may be stated that the work regarding the issue of voluntary disclosure intensified in the mid-1990s and that this issue attracted the attention of increasingly more academics. Different researchers have investigated various aspects of voluntary disclosure: Meek, Roberts and Gray (1995) investigated the factors affecting voluntary disclosure of English, French and German firms; Williams (1999) analysed the level of societal and environmental voluntary disclosures and the factors affecting these in Asian Pacific countries (Australia, Singapore, Hong Kong, Philippines, Thailand, Indonesia and Malaysia); Ho and Wong (2001) examined the level of voluntary disclosure of firms which were registered to the institutional management of the Hong Kong Stock Exchange; Bujaki and McConomy (2002) investigated the factors affecting voluntary disclosure of the firms registered in the Toronto (Canada) Stock Exchange; investigation of the relationship between voluntary disclosure and ownership structure was conducted by Chau and Gray (2002) for firms in Hong Kong and Singapore and by Eng and Mak (2003) for Singaporean firms.

The purpose of our study is to determine the factors affecting Turkish firms' voluntary disclosures. For this purpose we first checked the voluntary disclosure levels of Turkish firms listed in Istanbul Stock Exchange (ISE) for sectoral groups, and then we used Ordinary Least Squares (OLS) estimation technique to check the impacts of some variables on the voluntary disclosure of those firms.

To our knowledge this is the first empirical study addressing the issue of voluntary disclosure for Turkey which is one of the shining stars among emerging economies with significant Foreign Direct Investment and Portfolio inflow in the last decade and is a country in the eve of being a member of European Union. In that sense, it will be an interesting research topic to examine the voluntary disclosure for Turkey and to compare the results with the ones in the literature.

In this scope, this study has been structured as follows: part two presents the purpose, scope and methodology of the research which has prompted this study, part three presents our study's empirical results and conclusion and recommendations are drawn in part four.

2. The Purpose, Scope, Limitations and Method of the Study

The purpose of this study is to identify the factors affecting voluntary disclosure and levels of voluntary disclosure of the firms in Turkey. In relation to the so-mentioned aim, the main universe of the study has been selected as the firms listed in Istanbul Stock Exchange (ISE). From this universe, two sample groups have been established at random. The first of the sample groups has been established similarly in accordance with the sample group used in the original study on which this study was based; 33% of the 165 firms (equaling to 51 firms) in such industrial fields as 'Electronics and Technology', 'Publishing and Print', 'Foods and Beverages', 'Construction and Construction Materials' and 'Logistics and Automotive' made up the 5 activity areas in the sample. The justification for such a division is that consistency is ensured with the literature so that comparisons can be made with this current study. The second sample group was established according to the index classifications of the ISE and the 'National Industry', 'National Services' and 'National Technology' indexes out of the main sectoral indexes of the ISE have been taken as a basis. In order to establish this sample group, 25% of the firms in each of the indexes were selected. 41 out of the 164 firms (25%) in the national industry index were included in the sample to represent the

firms included in that index. Due to the numbers of firms in the indexes besides the national industry index being very low, it is thought that it would not be possible to obtain statistically significant results. Therefore, these firms were defined as the 'Other' index group. The total number of firms in the 'Other' group is 39. 25% of the 39 firms make up 10 firms. The information that has been voluntarily disclosed by the firms in the sample has been attempted to be determined by considering them in three different categories. For this purpose, the Voluntary Disclosure Checklist (VDC) was utilized (Attachment). This checklist was first developed by Meek, Roberts and Gray in the scope of the study they conducted in 1995. It was then later used in the 2002 study conducted by Chau and Gray.

The information disclosure items included in the VDC have been filled in by examining each annual report for each firm. If the information in the annual reports matches the information in the VDC, the allocated code is 1. If the information does not match, then the allocated code is 0. Due to the probable differences in the degree of importance placed on the information item of the users of the information, instead of placing different weightings on the various items, all items were accepted as having equal weighting. In addition to the existence of many parties which are interested in accounting information, these parties are interested in the information for various different purposes. If it was known which information item or items were deemed as more important by the investors, the weighting of some information items and/or information groups would be more in the general indexes. However, because this is not possible, the assumption that all the information is equal and that all investors place equal importance on the information has been accepted in this study.

As can be seen in the VDC included in Attachment, the VDC is divided into three main categories: Strategic Information, Non-Financial Information and Financial Information.

The 2003 annual reports of the firms were used in order to obtain this information. With the decision taken by the Capital Markets Board of Turkey, those firms which are included in the Capital Markets Board and the stock exchange must submit a financial report in accordance with the International Financial Reporting Standards starting from the year 2005. With this decision coming into effect, the year 2004 was much like a transition year for the firms and was a trial for the transition from the previous implementation style towards the new one. Therefore, we decided to use the data for the year 2003 in order to provide guidance for similar studies which may be conducted in the future and to eliminate the abnormalities which may be experienced in the transition period.

Once the so-mentioned information was converted into numerical values, an analysis was conducted by including it in the established multi-regression model. The information of the firms included in their annual reports was checked by use of the VDC and the voluntary disclosure index values for the individual firms were obtained. An analysis using the multi-regression model was applied to investigate the degree of the effect of such variables as *Profitability*, *Ownership Structure*, *Leverage*, *Firms Size*, *Auditor*, and *Multi-Nationality* on the voluntary disclosure index values obtained for the firms.

2.1. Model

In this study, by using Ordinary Least Square (OLS) estimation technique the following model was used to analyze whether there is a statistically significant relationship between voluntary disclosure and *Profitability*, *Ownership Structure*, *Leverage*, *Firm Size*, *Auditor*, and *Multi-Nationality*:

$$I_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + U_i \quad (1)$$

I_i: *i*-th firm's extent of voluntary disclosure scores

X_{1i}: *i*-th firm's size

X_{2i}: *i*-th firm's leverage

X_{3i}: *i*-th firm's auditor

X_{4i}: *i*-th firm's ownership structure

X_{5i}: *i*-th firm's profitability

X6i: i-th firm's multinationality

U_i: Error term of the model

This model was established based on the model developed by Chau and Gray (2002). This model consists of variables which are widely used and accepted in similar studies in the literature. Chau and Gray grouped the firms according to their areas of activity (construction, food, logistics and electronics) and conducted tests in the sub-groups in their model. In our study, the firms listed in the ISE were divided into 3 separate groups (Construction, Food and Other) which are represented in the model by dummy variables. Firms in the electronics, print-publishing sector were listed within the 'Other' group. Out of the three groups, the 'Other' group consisted of the least number of firms. In order not to fall into the dummy variable trap, the "Other" group is dropped from the model. The firms belonging to 'Construction' and 'Food' sectors have been included in the model with the dummy variables. Therefore, the model (1) is extended as below:

$$I_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + U_i \quad (2)$$

X7i: Dummy variable =1 if the i-th firm is dealing with food business and 0 otherwise

X8i: Dummy variable =1 if the i-th firm is dealing with construction business and 0 otherwise

In the model we assumed that there is no multi-linear relationship between the independent variables and non-linear relationship between the dependent and independent variables. Therefore, by using Ordinary Least Squares (OLS) technique, in the model in equation 2, we tested the following six hypotheses:

Hypothesis 1: *The size of firm has positive impact on the level of voluntary strategic, financial, non-financial, and total information disclosure.*

Hypothesis 2: *The leverage level of the firm has positive impact on the level of voluntary strategic, financial, non-financial, and total information disclosure.*

Hypothesis 3: *Being audited by major international auditing firms has positive impact on the level of voluntary strategic, financial, non-financial, and total information disclosure.*

Hypothesis 4: *The ownership structure of the firm has positive impact on the level of voluntary strategic, financial, non-financial, and total information disclosure.*

Hypothesis 5: *The profitability of the firm has positive impact on the level of voluntary strategic, financial, non-financial, and total information disclosure.*

Hypothesis 6: *Being a multi-national firm has positive impact on the level of voluntary strategic, financial, non-financial, and total information disclosure.*

2.2. Variables of the Model

It has been hypothesized that there is a positively correlated relationship between dependent and independent variables in the model. These variables have been commonly used in prior disclosure research studies (Chau&Gray, 2002, 253).

2.2.1. The Independent Variables of the Model

Firm Size: This has been included in the model because it has been assumed that institutionalization would increase in firms which have reached a certain size and that these firms would disclose more information to the public other than what is required by law. Many different criteria may be used in assessing the size of firms. In some sources, the size of the firm is defined by the scale of economic activity and capacity. Measuring the scale of activity or the size of the firm is based on various criteria (Kiracı, Bilge, 2003, 113). In our study, the net sales of the firms were taken as a basis for identifying the firm size. This was the most common criteria on determining the size of the firm in the literature. Therefore, it was also used in this study and has been included in the model.

Leverage: This variable has been used in the model by taking into consideration the leverage percentage, which is a percentage used to examine the financial structures of firms ((Short-term liabilities + long-term liabilities)/Total Assets). This ratio shows the percentage amount which is financed by foreign resources (TSPAKB, 2004, 33). The firms with a high 'Leverage' percentage rate have been included in the model with the assumption that these firms have a higher tendency to disclose information to loan providers and other stakeholders.

Auditor: The firms which are trading at the ISE must disclose their financial tables in each 3-month period appropriate to the standard format identified by the Capital Markets Board of Turkey. It is mandatory for the semi-annual and annual financial reports to be audited by independent audit organizations. The firms which are audited by the seven major auditing firms on a worldwide scale (Andersen, BDO, Deloitte Touche Tohmatsu, Ernst & Young, Grant Thornton, KPMG, PricewaterhouseCoopers) have been included in the model with the assumption that they will disclose more information due to their international experience and fame. This variable has been coded as 1 and 0 (1, if the firm is trading in the Capital Markets Board and is being independently audited by one of the seven major auditing organizations and 0 if the firm is audited by another independent firm) and included in the model.

Ownership Structure: This is a variable which shows to what percentage the shares are owned by the firms and held by the partners and, in comparison, what percentage is dealt with in the secondary market. In short, it can be stated as the rate of public disclosure for firms. The disclosure to public of the shares in the firms was obtained by calculating the percentage rate of the total shares. It was assumed that the firms with a high rate of public disclosure would disclose more information and therefore these firms were included in the model.

Profitability: This has been included in the model with the assumption that the level of voluntary disclosure of information will increase in relation to the increase in the firm's profitability.

Multi-nationality: In the literature it may be seen that multi-nationality has been used as a variable which may affect voluntary disclosure. Appropriate to the literature, it has also been included in this study as a variable which affects voluntary disclosure in the model. This has been included in the model with the assumption that when a large amount of the shares of the firm are owned by foreign firms and/or persons, more information may be voluntarily disclosed with the aim to attract more international investments. When multi-nationality is being identified, the total percentage of shares of the foreign partners has been taken as a basis.

2.2.2. The Dependent Variable of the Model

Voluntary Disclosure: When the dependent variable of 'Voluntary Disclosure' for the model was being identified, it was investigated whether the elements in the VDC (as of the year 2003) were included in the Capital Market Law and the General Notice for Implementing of the Accounting System. It was attempted to identify the dependent variable 'Voluntary Disclosure' value by indexing the equal weight elements found in the VDC and not found in the current Turkish regulations.

3. Findings

The average levels of voluntary disclosure according to the sectors are presented in Table 1. According to Table 1, the sector with the highest voluntary disclosure level for 'Strategic Information' is the 'Other' sector group. The group which follows the 'Other' group with a small difference is the 'Food' sector group. The 'Food' sector has the highest level for voluntary disclosure of 'Financial Information'. In the category for voluntary disclosure for 'Non-Financial Information', all the sectors have values which are very similar to each other. It can be seen that the highest level for voluntary disclosure of information in the category of 'Total Information' is obtained by the 'Food' sector. Further, when the values for voluntary disclosure of information are considered, the highest value can be seen for voluntary disclosure of Financial Information. It can also be seen in Table 1 that the firms which are registered with the ISE are reluctant to voluntarily disclose Strategic Information.

Level of voluntary disclosure by Sectors

	Food	Construction	Other*
Strategic information	0.2065	0.1103	0.2105
Financial information	0.2814	0.2444	0.2384
Non-financial information	0.1047	0.1045	0.1095
Total	0.1977	0.1628	0.1828

* "Other" group consists of publishing and print, transport and automotive industries.

The most important finding for all the voluntary disclosure groups was that the level of voluntary disclosure was very low for the firms which were listed in the ISE. This finding shows that the firms in Turkey do not look favorably upon voluntary disclosure of information.

When examining the factors which affect voluntary disclosures of the firms, the developed model was analyzed according to two separate classifications and was reported upon. The first of these two was developed appropriate to the studies in the literature and comprise the analysis and reporting. The second is developed according to the sector classification of the ISE in the analysis and reporting.

The results of the analysis based on the model in equation 2 are presented in Table 2. Here, the firms have been classified into three sectors: Construction, Food and Other. The 'Other' sector sample group was established by including the publishing and print, electronics and technology and logistics and transport sectors in the sample. In the analysis, the Construction, Food and Other sectors have been included in the model by representation of a dummy variable. In order for the 'Other' group not to fall into the trap of the dummy variable, the group was accepted as a main group and is represented by a constant term. The analysis of the data at hand in regards to the models defined in equation No. (1) and equation No. (2) can be seen in Table 2.

In Table 2, where the voluntary disclosure of strategic information is explained by the dependent variable in the first analysis, the *F* Statistic being 3.092699 and the *P* value being significant at 1% of the *F* Statistic show that the model is generally sufficient in terms of significance.

In the model, the *Firm Size* and *Profitability* variables were found to be significant. The *Firm Size* variable and *Profitability* variable are significant at 5%. The *Profitability* variable coefficient is 0.00000000363. This in turn shows that there will be a change to the degree of 0,00000000363 units in the same direction in the value for voluntary disclosure of Strategic Information when there is a change of 1 unit in the value of the *Profitability* variability. Whilst a change of 1 unit occurring in the *Firm Size* variable will lead to a change to the degree of -0.000000000816 in the opposite direction in the value of the voluntary disclosure of Strategic Information. Therefore, the increase in the percentage of profit of the main universe which comprises the firms in the sample positively affects the value for the voluntary disclosure of Strategic Information, but with a weak effect to the percentage.

When the value for voluntary disclosure of Strategic Information is examined according to sectors, it can be seen that the Food sector is not significant while the Construction and Construction Materials sector is significant at 1%. If the firm is actively working in the Construction sector, then there is a 0.224373% decrease in the average value of the voluntary disclosure of Strategic Information. That is, the value of the voluntary disclosure of information for the ISE is reduced if the firm is conducting activities in the Construction sector. Therefore, this shows that the firms in the Construction sector are reluctant to voluntarily disclose Strategic Information.

The constant term for the model representing the other sectors is significant at 1% and the constant of the model is 0.3155.

In regards to the results for voluntarily disclosing Financial Information, the *F* statistics which shows the general significance of the model, is significant at 5%. The *F* value is 2.288169; this shows us that, in general, the significance of the model is enough.

The variable *Auditor* is significant at 5%. The coefficient for the *Auditor* variable is 0.069815. If the firm is being audited by the seven major auditing firms, a change in the value of voluntary financial disclosure to the degree of 0.069815 in the same direction can be seen.

The *Firm Size* variable has a significance of 10%. The coefficient for this variable is -0.000000000551. A 1 unit change to occur in this variable will result in a change to the degree of 0.000000000551 in the opposite direction for the voluntary disclosure of Financial Information.

When the voluntary disclosure of information value is examined on a sectoral basis, it can be seen that the *P* value of the Food sector variable does not present significance. The *P* value of the variable for the Construction sector is 0.0643. This shows that the Construction sector variable is significant at 10%. It was found that if the firm is active in the Construction sector, a change to the degree of 0.083152 units in the opposite direction will result in the average value of the voluntary disclosure of Financial Information.

Although there is a significant variable for the voluntary disclosure of information which is Non-financial, the *F* statistic of 0.938490 which shows a general significance for the model and an *F* statistical *P* value of 0.495727 shows that there is no significance in general for the model.

The value for the *F* Statistics for the model in regards to the Total Voluntary Disclosure of information value is 2.990949. The *P* value for the *F* Statistics is 0.009555. These figures show that the significance of the model is enough. The auditor variable is significant at 10%, the *Profitability* variable is significant at 6% and the *Firm Size* variable is significant at 10%. If the firm is being audited by the seven major auditing firms, there will be an increase in the average of the Total Voluntary Disclosure value of a degree of 0.045570 units. A change in the amount of 1 unit in the *Profitability* variability will result in a change in the total value of the voluntary disclosure by 0,000000000183 units in the same direction. In addition, a change of 1 unit in the *Firm Size* variable will result in a change to the degree of 0.000000000378 in the total value of the voluntary disclosure.

When the Total Voluntary Disclosure of information value is examined on a sectoral basis, it can be seen that the *P* value of the Food sector variable does not present significance. The *P* value for the Construction sector variable is 0.0103 and this means that the Construction variable is significant at 2%. If the firm is active in the Construction sector, a change to the degree of 0.085428 units in the opposite direction will result in the average value of the Total Voluntary Disclosure of information. This shows that the firms in the Construction sector are reluctant to voluntarily disclose information.

The results of the analysis show that the *R*² values, which indicate the level of influence of the independent variables on the dependent ones (Table 2), have increased to 30%. This percentage is accepted as a rather high value, as the sample is heterogeneous (the firms in the sample are from different sectors and different financial structures, etc.).

Examination of the literature showed that the variable which was found to have the highest level of significance and had the most effect on the voluntary disclosure was the variable of *Ownership Structure* in the developed countries. However, this variable resulted in non-significant findings for the less developed country markets in the previous studies. Similarly, in this study focusing on Turkey, the variable *Ownership Structure* was not significant. In other words, the percentage rate of public disclosure or whether or not the firm is family owned did not affect the variable of voluntary disclosure. Another interesting finding of the study was related to the *Firm Size* variable. An increase in the size of the firm, negatively affects the levels of disclosure of strategic information, voluntary disclosure of Financial Information and the Total Voluntary Disclosure of information. This finding contradicts the expectation of this study that there would be a positive correlation between dependent and independent variables.

When the established model is analyzed according to the sectoral classification of the ISE, statistically significant results were not found.

4. Conclusion

In this study, the levels of voluntary disclosure and the factors which affect the levels of voluntary disclosure were investigated for firms which are trading in the ISE by taking the previously conducted international studies in this field.

As a result of the analysis, it was seen that the firms which are listed in the ISE and the sample are reluctant to disclose more or additional information. The sector group with the highest level for voluntary disclosure for 'Strategic Information' was the 'Other' sector. The highest average value for voluntary disclosure of 'Financial Information' is for the 'Food' sector. In terms of the voluntary disclosure for information which is 'Non-financial', there was no one sector which was more prominent when examining the values. When we take the disclosure of 'Total Information' values, it was found that the 'Food' sector had the highest voluntary disclosure value. When examined in terms of the categories, it can be seen that the highest voluntary disclosure was in the category of 'Financial Information'.

We used Ordinary Least Squares (OLS) estimation technique to check the impacts of *Firm Size*, *Leverage*, *Auditor*, *Ownership Structure*, *Profitability*, and *Multi-nationality* on the voluntary disclosure. According to estimation results, *Profitability* and *Firm Size* variables are significant for the "Strategic Info" model; *Auditor* and *Firm Size* variables are significant for the "Financial Info" model; leverage variable is significant for the "Non-Financial Info" model; and *Auditor*, *Profitability*, and *Firm Size* variables are significant for the "Total Disclosure" model.

In light of the findings of this study, it can be stated that, with the acceptance of mandatory disclosure of information, the firms that are listed in the Istanbul Stock Exchange are reluctant to voluntarily disclose information to the public.

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Table 2

Results of the Model

Variables	Strategic Info (1)			Financial Info (2)			Non Financial Info (3)			Total Info (4)		
	Coefficient	Standard Deviation	P- Value	Coefficient	Standard Deviation	P- Value	Coefficient	Standard Deviation	P- Value	Coefficient	Standard Deviation	P- Value
Constant Term	0.303385	0.079785	0.0005	0.282880	0.059151	0.0000	0.130165	0.044030	0.0051	0.231490	0.042988	0.0000
Firm Size	-8.16E-11	3.99E-11	0.0469	-5.51E-11	2.96E-11	0.0694	6.60E-12	2.20E-11	0.7658	-3.78E-11	2.15E-11	0.0856
Leverage	-0.000328	0.001093	0.7658	-0.000484	1.26E-10	0.2265	-0.001016	0.000603	0.0994	-0.000656	0.000589	0.2715
Auditor	0.068754	0.045913	0.1417	0.069815	0.034039	0.0465	0.005364	0.025337	0.8334	0.045570	0.024738	0.0725
Ownership	0.001117	0.001637	0.4990	0.000335	0.001214	0.7842	0.000704	0.000903	0.4403	0.000663	0.000882	0.4562
Profitability	3.63E-10	1.70E-10	0.0386	1.55E-10	0.000810	0.5535	1.02E-10	9.37E-11	0.2819	1.83E-10	9.15E-11	0.0518
Multinationality	0.007918	0.089787	0.9301	0.013138	0.066565	0.8445	0.002458	0.049549	0.9607	0.007412	0.048377	0.8790
Construction	-0.224373	0.059018	0.0005	-0.083152	0.043754	0.0643	-0.003802	0.032569	0.9076	-0.085428	0.031799	0.0103
Food	-0.038549	0.062569	0.5412	0.054477	0.046387	0.2468	0.041492	0.034529	0.2362	0.028800	0.033712	0.3978
R ²	0.370707			0.303544			0.151651			0.362937		
Adjusted R ²	0.250842			0.170886			-0.009939			0.241592		
F- Stat.	3.092699		0.007805	2.288169		0.03925	0.938490		0.49572	2.990949		0.009555
N	51			51			51			51		

- (1) Dependent variable, voluntary strategic information disclosure level;
- (2) Dependent variable, voluntary financial information disclosure level;
- (3) Dependent variable, voluntary non-financial information disclosure level;
- (4) Dependent variable, total voluntary information disclosure level.

* We make our judgement based upon significancy level less than or equal to %10.

ATTACHMENT : VOLUNTARY DISCLOSURE CHECKLIST

A. STRATEGIC INFORMATION

(1) General corporate information

1. Brief history of company
2. Organizational structure

(2) Corporate strategy

1. Statement of strategy and objectives – general
2. Statement of strategy and objectives – financial
3. Statement of strategy and objectives – marketing
4. Statement of strategy and objectives – social
5. Impact of strategy on current results
6. Impact of strategy on future results

(3) Research and development (R&D)

1. Description of R&D projects
2. Corporate policy on R&D
3. Location of R&D activities
4. Number employed in R&D

(4) Future prospects

1. Statement of future prospects – qualitative
2. Qualitative forecast of sales
3. Qualitative forecast of profits
4. Description of capital project committed
5. Committed expenditure for capital projects
6. Qualitative forecast of cash flows
7. Quantitative forecast of cash flows
8. Order book or backlog information

B. NON-FINANCIAL INFORMATION

(5) Information about directors

1. Age of the directors
2. Educational qualifications
3. Commercial experience of the non-executive directors
4. Commercial experience of the executive directors
5. Other directorships held by non-executive directors
6. Other directorships held by executive directors
7. Position or office held by executive directors

(6) Employee information

1. Geographical distribution of employees
2. Categories of employees by sex
3. Number of employees for 2 or more years
4. Reasons for changes in employee numbers or categories over time
5. Share option schemes – policy
6. Amount spent in training
7. Nature of training
8. Policy on training
9. Categories of employees trained
10. Number of employees trained
11. Welfare information
12. Safety policy
13. Data on accidents
14. Cost of safety measures
15. Policy on communication
16. Redundancy information

17. Equal opportunity policy statement
18. Recruitment problems and related policy

(7) Social policy and value-added information

1. Safety of products
2. Environmental protection programs – qualitative
3. Environmental protection programs – quantitative
4. Charitable donations
5. Community programs
6. Value-added statement
7. Value-added data
8. Value-added ratios
9. Qualitative value-added information

C. FINANCIAL INFORMATION

(8) Segmental information

1. Geographical capital expenditure – quantitative
2. Geographical net assets – quantitative
3. Geographical production – quantitative
4. Line-of-business production – quantitative
5. Competitor analysis – qualitative
6. Competitor analysis – quantitative
7. Market share analysis – qualitative
8. Market share analysis – quantitative

(9) Financial review

1. Profitability ratios
2. Qualitative comments on profitability
3. Cash flow ratios
4. Liquidity ratios
5. Gearing ratios
6. Fixed asset revaluation within the last 5 years
7. Financial history or summary – 3 or more years
8. Financial history or summary – 6 or more years
9. Restatement of financial information to IASC
10. Advertising information – qualitative
11. Effects of inflation on future operations – qualitative
12. Effects of inflation on results – qualitative
13. Effects of inflation on results – quantitative
14. Effects of inflation on assets – qualitative
15. Effects of inflation on assets – quantitative
16. Effects of interest rates on results
17. Effects of interest rates on future operations

(10) Foreign currency information

1. Effects of foreign currency fluctuations on future operations – qualitative
2. Effects of foreign currency fluctuations on current results – qualitative
6. Foreign currency exposure management description

(11) Stock price information

1. Share price at year end
2. Share price trend
3. Market capitalization at year end
4. Market capitalization trend
5. Foreign stock market listing information