

Voluntary disclosures and firm specific variables; evidence from UK listed firm

Enan Khan¹, Khurram Shafi^{1*}, Abdul Qayyum Khan¹, Shafqat Ali Shad²

¹Department of Management Sciences, COMSATS Institute of Information Technology, Wah Cantt, Pakistan

²Computer Sciences, Maharishi University of Management, FairField IA52556, USA

Abstract: Voluntary disclosures in the annual reports of firms listed on FTSE100 become more important after the global financial crisis. Recently, the push for enormous disclosure has been perceived specially in the non-financial part due to the occurrence of critical corporate scandals and deception observed in accounting practices, for instance Enron and WorldCom scandals (Management discussion and analysis: A review and implications for future research). Focus of this study is the period from 2005 to 2010, including the period of global financial crisis. Numbers of researches have been conducted in the past to study voluntary disclosure, and the determinants affecting it. In this kind of research two methods are used i.e. weighted and un-weighted approach. In this study we used un-weighted approach to avoid the judgment of the researcher. Then we used Panel Regression Model, with a dependent variable TVDS, and five independent variables which are size, age, board size, debt/equity and dual role. To make the study comprehensive the time frame was also divided into four main frames to compare the results of these time frames. The data used for this research is from the firms listed on FTSE100, from their annual reports. To make the study more purposeful we only selected non-financial firms, which make it possible to comparison on same grounds. The results suggest that dual role has the most significant effect on voluntary disclosures including firm size, age and gearing do affect voluntary disclosures. But board size has no effect on voluntary disclosure.

Key words: Age of the firm; Board size; Equity; FTSE100; Dual role

1. Introduction

The scandals spread by irresponsible sources have made the capitalist more vigilant which has increased their demand of more revelation in order to reach appropriate decisions. Multinational organizations are always in need of additional funds, thus in order to shrink the space between demands and supply the investors expect more disclosures that results in information asymmetries. The situation is optimized when organization discloses certain information to achieve the essential funding (Foster 1978). In order to meet the required funds the rate of information leakage is very high in multinational companies as compared to domestic organizations (Gray, Meek et al. 1993).

In the past few years' organizations like WorldCom, Enron and Parmalat have passed through accounting irregularities and therefore bondholders and investors doubt the authenticity of company's annual reports. The failure of such corporate cases has raised the demand of information disclosure. Company's annual report is the substantial way to determine the transparency (Nandi and Ghosh 2013). The motivation is to improve the corporate image, create healthy relationship with investor and to reduce lawsuit risks (Li and Zhao 2011). Organizations have strong motivation to disclose the discretionary information.

For instance, the effects of capital markets on accounting reports have been briefly described by (Foster 1978). Admati and Pfleiderer 2000 proposed that due to apprehensions in the amount of disclosure may result in the disruption of disclosure's strategy. In order to compete well for funds in the international market before making discretionary disclosures firms should also survey other company's reports.

Risk disclosure is famous among one group while the second group prefers discussion and surveys analysis (Amran, Manaf Rosli Bin et al. 2008). In order to earn the confidence and trust of shareholders and also to mitigate the organizational disorders, (Healy and Palepu 2001), suggested the managers to reveal the appropriate and useful information. (Hossain 2000), analyzed the mandatory as well as non-mandatory revelations provided by the banks of Bangladesh. The study, he conducted was appreciated in terms of benefits and profits. Another study analyzing the banks of Bangladesh, was carried out by (Arif and Tuhin 2013).

Several investigation has been conducted by multinational corporations (MNCs), highlighting multiple regions; for instance, United States of America, Continental Europe and Multinational companies of United Kingdom were studied by (Meek, Roberts et al. 1995). (Leventis and Weetman 2004) examined the annual reports of eight-seven organizations which are listed in Athens Stock

* Corresponding Author.

Exchange (ASE). Discretionary disclosures were divided in three distinct groups namely, social responsibility, disclosures involving financial issues and environment of the corporate. Considering Malaysian firms, (Haniffa and Cooke 2002), reported the effects of environmental characteristics and corporate governance on extent of disclosure. They proved that disclosures are affected by the environmental circumstances and also signifies that corporate governance to be substantial component of voluntary disclosures. (Linsley and Lawrence 2007) analyzed the non-compulsive disclosures about risk, of organization operating in UK and did not find any clue that firms hide their risk disclosures voluntarily, but they found that extent of readability in considering risk disclosures is arduous for the readers to understand.

Akin, organizations based in Malaysia were examined by (Amran, Manaf Rosli Bin et al. 2008) discovered size to be the substantial parameter in their investigations. In an already existing report, based on organization working in UK, (Elzahar and Hussainey 2012), explored that type and size of the company are paramount factors in non-compulsive risk disclosures. (Lajili and Zéghal 2005), pointed out the deficiency in risk disclosures, which in turn affects the efficiency.

About 75 years ago Mary Parker Follett, presented the phenomena of stakeholder theory. Stakeholder is defined by (Freeman 2010), according to this concept stakeholder is an individual or circle of people who manipulate the firm's success and achievements and firms victory is highly dependent upon that class of people. The range of corporate financial report users has been expanded from shareholders to stakeholders. However, it's always the right of stakeholders to get the desired amount of information related to company's ongoing ventures. (Gray, Meek et al. 1995) critically probed the stakeholder theory and suggested that it's an important and interesting parameter in view of organizations conduct related to annual reports provided by the companies.

Particularly this study concerns the organizational features that influence the decisions taken by the management for discretionary revelations concerning financial or non-financial matters. The present study aims to explore the level of corporate social disclosure about global financial crisis (GFC) by considering 100 FTSE firms, before years (2005-2006), in the period (2007-2008) and after (2009-2010). The investigations include the level of alliance amid some organizational features for instance firm size, leverage, age, dual role, debt/equity, and the domain of CSD in United Kingdom and acceptable variation in size, leverage, age, dual role and debt/equity, and elasticity in CSD.

2. Materials and methods

Data is collected from annual reports of the firm listed on LSE of FTSE 100, and only Non-Financial Companies are considered. Time Horizon of Six years

has been preferred to study, 2005 to 2010. FTSE 100 firms signify about 81% of the whole market capitalization of the LSE. The reason to choose FTSE100 is the easy availability of Data of firms listed. Apart from this the accounts governing body of UK is quite active and strong, and it is implementing policies effectively regarding preparation of annual reports.

In this paper we used the un-weighted approach, to avoid the judgment. We took some assumptions regarding our disclosure contents to further avoid the judgmental response.

$$TVDS = \sum_{n=1}^n di$$

Where as

TVDS = Total Voluntary Disclosure Score

D = 1 if the item *di* is disclosed, 0 if the item *di* is not disclosed

The OLS regression model will be used to check up the effect of size, leverage, board size, dual role of director and age of firm on discretionary disclosures.

$$TVDS = \alpha + \beta_1 SIZE + \beta_2 LEV + \beta_3 DUAL + \beta_4 BOARD + \beta_5 AGE + \mu$$

As the analyzed time frame is between 2005-2010, which is relatively short period of time, when the larger number of firms are taken into account. Hence the present situation does not recommend the implication of random effect method. Therefore, in the current study we have not employed the random effect method. The result of Hausman test recommends applying fixed effect.

In order to select between pooled OSL and random effect, Breusch-Pagan LM test has been employed. Hence the required hypothesis is drawn.

The particular hypothesis is drafted as follows:

$$H_0 : \sigma_T = 0 \text{ (Pooled OLS is appropriated)}$$

$$H_1 : \sigma_T \neq 0 \text{ (RE method is appropriate)}$$

The accepted hypothesis is H_0 if the chance of occurrence of LM-test exceeds 5% and therefore rejects the alternative hypothesis H_a . That means, the provided data is approximated preferably by Pooled OLS method and vice versa.

Table 1: Number of items for voluntary disclosures

Serial No.	Items
1	Ratios
2	Age of Directors
3	Market share of the firm
4	Graphical presentation in KPI's
5	Exchange Rate
6	Brief narrative history
7	Profile of firm at the start of the annual report

The below mentioned table sum up the classification and computation of the variables used in this study.

3. Results and discussion

In this chapter, we will discuss the following sections, which are the descriptive analysis of the dependent and independent variables. In which we will discuss mean, median, standard deviation, Skewness and kurtosis. The correlation analysis among the independent variables and with dependent variable has been discussed. Either the correlation is significant or not. The results of Panel regression analysis are discussed in this part of the thesis. In which we will discuss the three different time frames i.e. Pre-crisis, During-crisis and Post-crisis.

Table 2: Description and computation of the variables.

Definition Variable	Measurement
TVDS	The addition of the total of pieces appeared
Board Size	The total members on the board
Role Duality	Code 1 if CEO is the chairman and 0 if not
Firm Size	Total assets
Firm Age	Computed in years
Leverage	Total Debt/ Equity

This model represents the results of panel regression model. The independent variables explained the TVDS of the model around 63.5 %, calculated by Adjusted R-square with an F of 9.91, which is significant at $p < .001$. According to the results all variables except Board size are significant.

Among the significant variables Debt/Equity and dual role are negatively associated. As said above, Board Size has been noted insignificant, with the probability of 0.8944, coefficient of 0.004 and t-score of 0.132. With the probability of 0.0108, coefficient of 0.042 and t-score of 2.566 Age has been noticed. Debt/Equity came with the results of probability of 0.0054, coefficient of -0.003 and t-score of -2.8. The most significant relation has been found with Dual Role with the probability of 0, coefficient of -0.56 and t-score of -5.22. The probability of 0.0003, coefficient of 0.41 and t-score of 3.63 of Total asset has been noticed.

In the time frame of pre-crisis i.e. 2005-2006, the results are mentioned in the table. The independent variables explained the TVDS of the model around 52.7 %, measured by Adjusted R-square with an F of 6.7, which is significant at $p < .001$. Same in the whole period, Board size is insignificant, with the probability of 0.8614, coefficient of 0.0064 and t-score of 0.174. For the variable Age, the outcomes are opposite. It is the most significant variable in pre-crisis period with the probability of 0, but coefficient of -0.8 and t-score of -4.17. Debt/Equity is insignificant with the probability of 0.147, but coefficient of -0.00453 and t-score -1.459. Independent variable Dual Role is still significant in the pre-crisis period with the probability of 0.0089, but coefficient of 1.7 and t-score of 2.63. Total asset is insignificant with the probability of 0.25, coefficient of -0.38 and t-score of -1.14.

Table 3: Comparative Analysis of Time Frames

Variable	Coefficient				t-Statistic				Prob.			
	Whole	Pre	During	Post	Whole	Pre	During	Post	Whole	Pre	During	Post
C	-0.85	25.87	-4.39	-22.33	-0.96	4.07	-0.37	-3.10	0.33	0.00	0.70	0.00
BS	0.004	0.006	0.02	-0.030	0.13	0.17	0.46	-2.21	0.89	0.86	0.64	0.02
AGE	0.04	-0.80	-0.11	0.96	2.56	-4.17	-0.33	4.77	0.01	0	0.73	0
DE	-0.003	-0.004	-0.008	0.009	-2.8	-1.45	-1.23	1.47	0.00	0.14	0.21	0.14
DUAL	-0.56	1.70	-1.99	-0.27	-5.22	2.63	-1.64	-0.45	0	0.00	0.1	0.65
TA	0.41	-0.38	0.97	-0.17	3.63	-1.14	1.17	-0.32	0.00	0.25	0.23	0.74
R2	0.70	0.61	0.07	0.64								
Adj R2	0.63	0.52	-0.14	0.55								
F-stat	9.91	6.70	0.34	7.45								
Prob (F-stat)	0	0	0.99	0								

The independent variables explained the TVDS of the model only by 7.8 %, measured by Adjusted R-square with an F of 0.99, which is insignificant at p. Important to note all variables are insignificant in the during-crisis period of 2007-2008. Board Size has been noted insignificant, with the probability of 0.6447, coefficient of 0.029074 and t-score of 0.461656. With the probability of 0.7382, coefficient of -0.11993 and t-score of -0.33465 Age has been noticed. Debt/Equity came with the results of probability of 0.2185, coefficient of -0.00827 and t-score of -1.23356. The relation of Dual Role has been noted with the probability of 0.1009, coefficient of -1.99238 and t-score of -1.64628. The probability of

0.2399, coefficient of 0.971834 and t-score of 1.178064 of Total asset has been noticed.

In the time frame of post-crisis i.e. 2009-2010, the results are mentioned in the table. The independent variables explained the TVDS of the model around 55.8 %, measured by Adjusted R-square with an F of 7.45, which is significant at $p < .001$. Opposite to previous time frames, Board size came up significant, with the probability of 0.0279, but coefficient of -0.03088 and t-score of -2.21167. For the variable Age, it is the most significant variable of this time frame, with the probability of 0, coefficient of 0.967584 and t-score of 4.777564. Debt/Equity is insignificant with the probability of

0.1424, but coefficient of 0.009408 and t-score 1.471533. Independent variable Dual Role is insignificant in the post-crisis period with the probability of 0.6502, but coefficient of -0.27944 and t-score of -0.45399. Total asset is insignificant with the probability of 0.7438, coefficient of -0.17691 and t-score of -0.32718.

In the table below a comparison of whole time frame, pre-crisis, during-crisis and post-crisis have been presented. The R-square is quite significant in all time frames except in during-crisis period which is 7%. According to F-statistics independent variables fail to explain dependent variable TVDS. In case of independent variables Board size is insignificant in all time frames except in post-crisis with the probability of 0.02. Age is significant in all time frames, but is insignificant in during-crisis period. The Debt/equity is only significant in whole time frame. Interestingly Dual Role is significant in all time frames, but is insignificant in after crisis period. In last the Total Asset is only significant in whole time frame period.

4. Conclusions

From country to country, rules and principles regarding disclosures of information and its element varies. In one country one element may be compulsory to disclose, and not in another. Our first objective was; the degree to which companies in United Kingdom reveals particular discretionary information. Our second objective was; association and influence of size, leverage, age, board size and dual role with the extent of voluntary disclosures. Among the independent variables there is no significant correlation association, and of independent variables with the dependent variable. Our third objective was; how voluntary disclosures are influenced in the critical time of an organization. The critical time was the crisis period of 2007-2008. For this purpose, we applied the test on this specific time period. The result shows nominal R2 and all the variables are failed to explain the dependent variable TVDS i.e. there relation with the dependent variable is insignificant. Among the five variables, relations of three variables have been noticed negative with the TVDS, which are Dual Role, Debt/Equity and Age. In this research the effect of size of firm, age of firm, gearing, role duality and board size on total voluntary disclosures (TVDS) has been studied, however there are other variables also which may affect TVDS.

This research study will help the stake holders to understand the elements that drive the voluntary disclosures of the firm, especially in the time of crisis. This study will also help investors who are more interested in the firms which are disclosing up to their requirements. This research can further be extended by selecting different time frame, region and variables for example black Monday, china stock market crash 2015 etc. Apart from panel regression model there are some renowned models for example OLS regression model, generalized least squares

(GLS), Tobit regression, and Quantile regression, which may further refine the results

References

- Admati, A. R. and P. Pfleiderer (2000). "Forcing firms to talk: Financial disclosure regulation and externalities." *Review of Financial Studies* 13(3): 479-519.
- Amran, A., et al. (2008). "Risk reporting: An exploratory study on risk management disclosure in Malaysian annual reports." *Managerial Auditing Journal* 24(1): 39-57.
- Arif, H. M. and M. H. Tuhin (2013). "Disclosure of Non-Financial Information Voluntarily in the Annual Report of Financial Institutions: A Study on Listed Banks of Bangladesh." *European Journal of Business and Economics* 8(2).
- Foster, G. (1978). *Financial Statement Analysis, 2/e*, Pearson Education India.
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*, Cambridge University Press.
- Gray, S. J., et al. (1993). *Voluntary disclosure decisions by US, UK and continental European multinationals*. Hawaii: Paper Presented at Academy of International Business Annual Meeting.
- Gray, S. J., et al. (1995). "International capital market pressures and voluntary annual report disclosures by US and UK multinationals." *Journal of International Financial Management & Accounting* 6(1): 43-68.
- Haniffa, R. M. and T. E. Cooke (2002). "Culture, corporate governance and disclosure in Malaysian corporations." *Abacus* 38(3): 317-349.
- Healy, P. M. and K. G. Palepu (2001). "Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature." *Journal of Accounting and Economics* 31(1): 405-440.
- Hossain, M. (2000). "Disclosure of financial information in developing countries: A comparative study of non-financial companies in India, Pakistan and Bangladesh." *Unpublished PhD Dissertation, The University of Manchester*.
- Hossain, M. (2000). *The disclosure of information in the annual reports of financial Companies in developing countries: The case of Bangladesh*, University of Manchester.
- Hossain, M. and H. Hammami (2009). "Voluntary disclosure in the annual reports of an emerging country: The case of Qatar." *Advances in Accounting* 25(2): 255-265.
- Lajili, K. and D. Zéghal (2005). "A content analysis of risk management disclosures in Canadian annual

- reports." *Canadian Journal of Administrative Sciences* 22(2): 125.
- Leventis, S. and P. Weetman (2004). "Voluntary disclosures in an emerging capital market: some evidence from the Athens Stock Exchange." *Advances in International Accounting* 17: 227-250.
- Li, H. and P. Zhao (2011). *A study of factors influencing voluntary disclosure of Chinese listed companies*. M & D Forum.
- Linsley, P. M. and M. J. Lawrence (2007). "Risk reporting by the largest UK companies: readability and lack of obfuscation." *Accounting, Auditing & Accountability Journal* 20(4): 620-627.
- Meek, G. K., et al. (1995). "Factors influencing voluntary annual report disclosures by US, UK and continental European multinational corporations." *Journal of international business studies*: 555-572.
- Nandi, S. and S. Ghosh (2013). "Corporate governance attributes, firm characteristics and the level of corporate disclosure: *Evidence from the Indian listed firms*." *Decision Science Letters* 2(1): 45-58.