The Value Relevance of Voluntary Disclosure: Evidence from Tunisia Stock Market

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Abstract

The present research examines empirically whether domestic investors in the Tunisia Stock Market (BVMT) perceive voluntary disclosure to be value-relevant. The study is motivated by the market-based value-relevance literature in the U.S. and by the developments of accounting and stock markets in Tunisia. This research, explores through an investigation by questionnaire external auditors' perception of the value relevance of voluntary information in the annual reports, it also uses panel data analysis to examine the association between voluntary disclosure and firm value. The Results reveal that external auditors discern that the politics of voluntary disclosure in the annual reports is minimalist. Results show, also, the interest that carries these auditors to nonfinancial and budgetary indicators and the utility of the annual report to the certification. After controlling profitability and size, regression results indicate a negative and insignificant relationship between voluntary disclosure and firm value. This lack of statistical significance supports the idea that there is a complex interplay of different factors affecting this association. However, this paper has contributes to that investigation in the context of emerging capital market in the North African Region.

Keywords: Disclosure quality, Value-relevance, Voluntary disclosure, Tunisia

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Introduction

Nowadays the quality of voluntary disclosure contained in the annual reports is in the heart of financial modern problems and is essential to the proper functioning of equity markets. Corporations communicate their financial information to the investing community via two major avenues: disclosure and recognition. Firms provide disclosure through regulated financial reports including financial statements management discussion and analysis. In addition, firms engage in voluntary communication[1], such as management forecasts, analysts' presentations and conference calls and other corporate reports (Healy & Palepu, 2001). Indeed, investors and financial analysts rely upon voluntary information in forming investment strategies and choosing profitable projects. So, the demand for financial reporting and disclosure arises from information asymmetry and agency conflicts between managers and investors.

In the context of globalization of the world's financial markets, disclosure quality has received considerable attention in the accounting literature and several research is done both in developed (Bradbury, 1992; Raffournier, 1995) and developing countries in general (Hassan et al, 2009; Hossain and Hammami, 2009) and in Tunisia in particular (Hakim & Omri, 2008; Loukil, et al; 2010; Mattoussi, et al; 2004).

Prior research, however, focus on testing the link between voluntary disclosure levels and stock liquidity (Leuz & Verrecchia, 2000) or the link between voluntary-disclosure levels and cost of equity capital (Botosan & Plumlee, 2002), or examining the determinants of voluntary disclosure (Wang & Claiborne, 2008). Although, little attention has been devoted to the investigation of the value-relevance of voluntary disclosure in general and in emerging market in particular.

The accounting literature has asserted that, in the view of informational asymmetry, disclose of private information brings general gains in economic efficiency. Hence, financial statement users are encouraged to consider voluntary disclosure when making investment decisions. Thus, the empirical literature (Lang, et al; 2003; Baek, et al; 2004) suggests a positive association between disclosure and firm value. However, the size of the gains and the ultimate effect on financial prices may vary considerably depending on the 'informativness' of disclosed information and on the ways the information is disseminated and used (Hossain & Reaz; 2007, hammami, et al; 2009). Indeed, information might also have a negative value, even we consider the interplay of different costs of disclosure that may dominate a company's disclosure policy (Hassan, et al; 2009). Then, revealing more public information could generate uncertainty about the future prospects of a company and places a firm at a competitive disadvantage relative to its rivals. Hence, the effect of voluntary disclosure upon firm value is still an empirical issue. This is a fundamental issue because accounting is a primary source of public information in the Tunisian Market, and the purpose of various measures taken by the Tunisian government is to increase the usefulness of accounting information.

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[1] The financial accounting standard Board (FASB, 2000) describes "voluntary disclosures" as "information primarily outside of the financial statements that are not explicitly required by accounting rules or standards".

To our knowledge, it is the first study to empirically examine the value relevance of voluntary disclosure of the Tunisian companies through the perception of external auditors. Tunisia stock exchange (la Bourse des Valeurs Mobilières de Tunis) is the principal stock market of Tunisia established in 1969 and has currently (till October, 2013) 62 companies listed. In this paper, we examined the relationship between firm value and voluntary disclosure in the annual reports of the non-financial listed company in the Tunisia Securities Market. The methodology is based on quantitative approach using questionnaire and multiple regression analysis. In this area, we contributes to the accounting literature on the quality of financial reports by showing that the politics of voluntary disclosure in the annual reports is minimalist, results show also, the interest that carries the external auditors to no financial and budgetary indicators to appreciate the quality of financial reports, we demonstrate also that voluntary disclosure has a negative but insignificant association with firm value. This lack of statistical significance supports the view that there is a complex interaction of different factors determining the relationship between voluntary disclosure and firm value.

The remainder of the paper is organized as follows. Section 2 presents the environment of corporate reporting in Tunisia. Section 3 presents the literature review and hypothesis development. Section 4 describes the research design and the empirical results and the final section concludes the paper.

The framework for financial reporting in Tunisia

Since 1968, the Tunisian accounting regulations and practices were governed by a French-style macro-economy oriented accounting system. In these sense, (Mattoussi, et al; 2004) mention that the strategy of reporting in Tunisian firm is in line with the strategy of its former French colonizer. This system enabled the Tunisian companies to organize and rationalize their accountancies until the 1980's but it went unfitted in the 1990's to the economic and financial environment evolution since Tunisia engaged in economics reforms aimed at introducing market instruments. The initial phase of financial reforms [1987-1993] aimed at gradual dismantling of the debt economy. Thereafter, financial reforms aimed at paving the way for the strengthening of a financial market economy [1994 to present] (Ben Naceur & Omran, 2011). In the framework of its economic and financial reforms, a new accounting system was introduced in December 1996 by adopting standards which are perfectly harmonized with the international ones. A total of 41 accounting standards have been pronounced. The accounting system fixes the principal accounting obligations of the Tunisian companies, and presents a conceptual framework intended to be used as support and guide for the drawing up of accounting standards.

In Tunisia, the law N° 94-117 has fixed mandatory information, the conditions and the timing of disclosure. Thus, at the end of every fiscal year, the board of directors establishes, under its responsibility, the financial statements in order to assist users in making efficient decisions. The IASB states that the primary purpose of accounting is to meet the needs of capital market. Consequently, the important objective of the Tunisian accounting reform through the accounting system on 1997 is to improve the usefulness of financial reporting in the stock market. Therefore, the study of the relationship

between voluntary disclosure and firm value is obviously interesting for capital providers, but also for managers.

Since (Ball & Brown, 1968), several studies document the association between accounting earnings and stock returns in the U.S. Market. More recently, research investigate the value-relevance of accounting information and voluntary disclosure in non-U.S markets, particularly in emerging markets (Chen & Su, 2003; Hossain & Hammami, 2009; Iatridis, 2011).

The current study is motivated by the market-based value literature, it explores whether voluntary disclosure is value-relevant to domestic investors in the Tunisian stock market.

In the area of accounting information and corporate disclosure, the results are mixed. Thus voluntary disclosure can increase or decrease firm value depending on the complex interplay of a number of possibly conflicting factors. Empirical studies suggest the value-relevance of both the balance sheet and the income statement information in the U.S. market (Burgstahler & Dichev, 1997; Barth, et al; 1996). In foreign market, (Alford, et al; 1993) find that accounting earnings from France, the Netherlands, and the United Kingdom are more value-relevant than U.S. accounting earnings. (Chen & Su, 2001) report evidence consistent with the notion that accounting information is value-relevant to investors in the Chinese market despite the young age of the market and the perception of inadequate accounting and financial reporting in China. (Bushee, et al; 2007) report that firms with effective financial reporting obtain better market valuations in the year after the improvement of their financial reporting procedures. The empirical literature, even though very limited, suggests a positive association between disclosure and firm value (Lang, et al; 2003). (Graham et al; 2005) find that managers make voluntary disclosures to reduce information risk and boost stock price but at the same time, try to avoid setting disclosure precedents that will be difficult to maintain. However, (Botosan & Plumlee, 2002) find positive, negative and no association between different types of disclosure and the cost of capital. Thus, investors might suspect or misinterpret the intentions of the company when it provides more information to the capital market without any obligation to do so. Thus, revealing more public information could generate uncertainty about the future prospects of a company and, as a result, lower firm value (Hassan, et al; 2009).

In emerging markets, empirical studies are divided and their results are not conclusive: (Hassan, et al; 2009; Wang &Claiborne, 2008; Chen, et al; 2009) show that there is no significant effect of the corporate information disclosure neither on the firm's value nor on financing cost (debt and equity). In Tunisian stock market, (Gana & Chemli; 2008) find that stock liquidity decreases with the level of information disclosure. However, (Mattoussi, et al; 2004) and (Haddad, et al; 2009) find a positive relationship between stock liquidity and disclosure level. Hence, the value relevance of voluntary disclosure is still an empirical issue. Yet, according to the traditional view, more information adds value to companies. Therefore, one could expect a positive association between voluntary disclosure and firm value. Our hypothesis is:

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The level of voluntary disclosure is positively associated with firm value.

This analysis should include controls for other variables that affect the degree of value-relevance of voluntary disclosure, including some firm characteristics. Within this context, previous studies identify size as an important conditioning variable when testing the information content of accounting data as it relates to security prices (Frank, 2002). Size is often related to the information environment; as such large firms are expected to have more information available to investors. Greater amounts of information may aid investors in evaluating future firm prospects. Further, most researchers have found a positive association between higher profit levels and firm value (Hassan, et al; 2009). (Hayn, 1995) demonstrates that firms reporting negative earnings have less earnings response coefficients than those who do not. In addition, value-relevance of financial reporting may be affected by the profitability of the firm. In this line agency theory suggests that managers of larger profitable companies may wish to disclose more information to obtain personal advantages like continuance for their management position and compensation.

Research methodology

We conduct a quantitative analysis based on primary data from a questionnaire sent to the external auditors to assess their perception of the value relevance of voluntary disclosure in the annual reports and on secondary data from annual reports. The analysis is declined into two stages. The first is to construct an index of disclosure. The second step is to establish a multiple linear regression model that will allow us to observe the nature of the relationship between firm value and voluntary disclosure of Tunisian companies listed in non-financial sector. We first present the details of constitution of our sample and data collection method used. We then define the score and procedure for generating items. Finally, we define the measures of our study variables, indicating the method of analysis adopted.

Questionnaire Survey

Survey Design and Delivery

We developed the initial survey instrument based on a review of the voluntary disclosure literature. Surveys offer an opportunity to ask respondents' very specific and qualitative questions about voluntary disclosure, contrary to archival analyses who may suffer from several weaknesses related to variable specification and the inability to ask qualitative questions (Graham, et al; 2005). According to (Neuman, 2000), a judgment sampling should be used when a limited categories of people has the required information. Hence, it was decided to administer a questionnaire to external auditors. The principle rationale for selecting this group is based on two factors. First, we assumed that this group would have sufficient knowledge and expertise from their daily work regarding the issues of accounting manipulation and earnings management, so they have a public interest mission through the certification of the fairness and regularity of financial statements. The select of this population is also justified by the fact that they have good experience in audit work and internal control of companies and can therefore express their perception of the value relevance of disclosure. We believe

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that they helped us significantly in our research and they gave us objective and independent opinion. From the list of the members of the Institute of Chartered Accountants of Tunisia (Ordre des Experts Comptables de Tunisie), we submitted the questionnaire to (40) external auditors randomly selected. Twenty four external auditors responded to the survey, for a response rate of 60%. This response rate compares favourably with other studies in the same setting, which have indicated that the average response rate to questionnaire surveys in Tunisia tends to be low, ranging between 30 and 70 per cent. Table 1 presents characteristics of the survey respondents.

Table 1 Characteristics of the survey participants

Respondents experience	Less than 5 years	5 to 10 years	More than 10 years
Number of respondents	3	11	10

We solicited feedback from several academic researchers and external auditors on the survey content and design. The final survey contained 12 questions, and the paper version was five pages long. The draft survey is divided into three sections:

-The first part of the questionnaire focuses on the importance of the voluntary disclosure as perceived by external auditors. This first part mainly requires the auditors to indicate the extent and level of voluntary disclosures in the annual reports of the Tunisian listed companies.

-The second part describes the predominant qualities and desirable qualities in the annual reports.

-The third part indicates the external auditors' perception of the value-relevance of voluntary disclosure in annual reports of Tunisian listed companies.

Analysis of Questionnaire

With the aim to assess external auditors' perception of the value relevance of voluntary disclosure in Tunisia, we attempt in this section to investigate our findings gathered through questionnaire. We estimate that external auditor's opinions are very important to our research. Since they are independent and experienced, they provided us with a general and objective opinion upon voluntary disclosure in annuals reports of Tunisian companies. Respondents were asked to indicate their level of agreement with each question on a scale from 1 to 5 (from not very important to extremely important).

The results reveal that 58,7% of external auditors consider that voluntary disclosure in annual reports are not detailed, 22,8% see them as medium detailed and 18,5% consider them as detailed. In addition, the majority of external auditors apprehend that the volume of voluntary disclosure is average. 58% of respondents affirm that there is a gap of communication between firms and investors.

Regarding the degree of importance of predominant qualities and desirable ones of the information voluntarily disclosed in annual reports. 89% of respondents report that intelligibility is the quality of information most prominent in annual reports. Although, relevance is the lowest qualities prevailing. However, it is the second most desired

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qualities. Hence, there is a gap between the importance of qualitative characteristics existing in annual reports and those desired by external auditors.

Moreover, we find that the majority of external auditors (85%) consider that financial statements are very important for investors' decisions. Based on the classification on items in annual reports, they classify financial statements in the first place. While 68% of external auditor rank the report of certification at the second place i.e., they are important (the second level of agreement). The certification report is therefore an important information source that helps to the decision making. However, since the recent financial scandals (Enron, 2002 to the United States, Parmalat, 2003 in Italy, Ahold, 2002 in the low countries and Batam, 2003 in Tunisia), several shapes of earnings management have been adopted by firms to camouflage their real financial situation. Regarding the annual report that interests us most in our survey, it is considered very important by 53% of external auditors and important by only 29%.

Overall, we find that external auditors discern that the politics of voluntary disclosure in the annual reports is minimalist and are in agreement with the idea that annual report provides investors with useful informations for financial analysis that are not available in the financial statements. This confirms the opinion that annual report is a strategic support of voluntarily information. However, majority of respondents consider that the annual report should be enriched by indicators on human capital, ownership structure and forward-looking information which should be more precise and less biased. Hence, managers should pay more attention to their voluntary disclosure strategy and satisfy the needs of external users. This is also called standards-setters to review the content of annual report

Sample and data collection

Our sample is composed by Tunisian companies listed in the BVMT. It is limited to enterprises that operate in non financial industry and this like (Hakim & Omri, 2008) and (Bertrand, 2000), because of the specificity of their financial data (Banc, leasing, assurances…). We observe these firms over the period 2000- 2008[1]. The data were collected from the financial statements published by the Council of Financial Market (CMF), from firms' website and from the link of the BVMT. They will be organized in the form of panel data in order to increase the number of observations (because the number of listed firms in Tunisia is low). The main criteria used for sampling the firm were: (i) annual reports must be available and (ii) the firm must have been listed for the entire period of the study. Table 2 presents the industrial composition of the sample.

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[1] In the literature, some research has also involved small samples. This applies to the study of Ng (1985) with 32 New Zealand companies, Zéghal and Ahmed (1990) with 15 Canadian companies and Hossain and Hammami (2009) with 25 listed firms of Doha Securities Market.

Table 2 Industrial composition of the sample

Industry	No. of firms
services	7
Manufacturing firms	18
Annual reports not available	(5)
Final sample	**20**

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Model Specification

The model used to examine the value relevance of voluntary disclosure was inspired by the survey of (Anandarajan & Hasan, 2010). The dependent variable in this regression is firm value. The financial performance and firm size were kept as control variables. We focus in particular in the index of (Botosan, 1997) who choose items included in the index according to the recommendations provided in the Jenkins report (AICPA, 1995). This index, constructed for US firms, has proved his validity as a measure of disclosure extent for different institutional setting, such as: (Loukil, et al; 2010; Mattoussi, et al; 2004; Gana & Chemli, 2008) for Tunisian firms, Patelli and Prencipe for Italians firms and Alsaeed (2006) for Saudi firms. We test the following models to study the relationship between firm value and voluntary disclosure. This relationship is examined in two different ways. First, a univariate analysis is undertaken and the correlation coefficient between firm value and voluntary disclosure index is estimated. Second, to provide a more comprehensive analysis of the relationship between disclosure level and firm value, a multivariate analysis is conducted that controls for other variables suggested from prior studies. These control variables are: firm size and firm performance (Baek, et al; 2004).

These variables, together with their expected coefficient signs, are included in the multiple-regression specification as follows.

Firm value = f (firm size (+), (Firm performance (+), Voluntary disclosure (+). (1)

Variables Measures and Research Design

The Disclosure Score

The extent of financial disclosure for Tunisian non-financial listed companies is measured by the disclosure-index technique. According to (Botosan, 1997; Hassan, et al; 2009; Hossain & Hammami, 2009), we examine the existence of a number of items of information in companies' annual reports. The Botosan' scoring procedure consists on assigning one point for qualitative information and an additional point for quantitative information. The score is the total points awarded to firm divided by the highest score.

The process of constructing the disclosure index involved four main steps. First, a careful review of disclosure literature was undertaken to select items of information that

Tunisian companies might disclose voluntarily. The second step is to adapt these items to Tunisian firms. Thus, the list of items was revised by using a sample of companies' annual reports to find out what companies did actually disclose. Further, The amended list of items of information was applied to the entire sample of companies and filtered for items of information that were rarely or never disclosed by the sample companies over the research period to adjust our index to disclosure practice followed by Tunisian firms. Hence, we exclude irrelevant items, such as: 1) not disclosed by any firm and 2) disclosed by all firms. Once the final list of items of information was determined, the third step was to assign a score to each item included in the list. Each item was equally weighted by giving the item of information the value of one if disclosed and the value of zero if not. The total disclosure index is measured as the sum of scores awarded to a particular company in a particular year divided by the maximum number of applicable items. Thus, our final index includes 36 items: general information (12 items); summary of historical financial results (3 items), non-financial information (5 items), forecasting information (7 items) and analysis and discussion of the management (9 items). Finally, it was necessary to assess whether they were relatively reliable proxies for the extent of disclosure. We, therefore, tested for the reliability of the disclosure indices employed in this research using the commonly used measure for internal consistency, namely Cronbach's alpha. Cronbach's coefficient indicates that the disclosure index shows a satisfactory internal consistency (Cronbach Alpha = 0,65).

Firm Value

The objective of this study is to examine if voluntary disclosure is value- relevant to investors for firms in Tunisian stock exchange. Research in this area has examined the reliability or informativeness of accounting measures, popularly referred to in the literature as value-relevance (Anandarajan & Hasan, 2010). Researchers use two types of valuation models in the literature: a return model and price model. Return regressions describe the relationship between stock returns and accounting earnings. (Easton, et al; 1992) popularize a specific version of the annual return model including both earnings levels and earnings changes (Harris, et al; 1994). Value relevance research in an international setting began with the work of (Alford, et al; 1993). (Alford, 1993) focuses on the extent of alignment between tax and financial accounting. The authors measured value relevance as the association between earnings and stock returns. As noted by (Burgstahler & Dichev; 1997), value relevance is defined as the power of specific financial statement numbers to explain changes in equity values. The greater the explanatory power, the greater the value relevance. According to (Chen, et al; 2001), the return model1 examines whether accounting information reflects events that affect stock prices over the return interval, but the price model evaluates whether accounting information is incorporated in stock prices cumulatively up to a certain point of time. (Filip & Raffournier, 2010) pointed out that price models are affected by scale problems and uncorrelated omitted variables problems, producing biased explanatory power and less biased regression coefficients. Within this framework, the response coefficient of

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[1] According to (Filip and Raffournier, 2010), return regressions are not affected by scale and produce less biased R-squares, we choose to estimate the return model over an annual window to be consistent with the price model approach and to keep our results comparable to the association studies literature.

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explanatory variables is used as indicator of their information content and their value-relevance. Indeed, an accounting figure is said to be value relevant if its regression coefficient is statistically significant. Globally, the R-square coefficient of the regression measures the value relevance of the set of accounting items included in the equation (Filip & Raffournier, 2010). Therefore, following (Alford, et al; 1993, Ali & Hwang, 2000) and many others authors, we used the following return model. The security return during an exercise is expressed as follows.

$$\mathrm{RET}_{it} = \frac{(Pit - Pit-1) + Dt}{Pit-1} \qquad (2)$$

RET_{it}: security returns for security i in period t which is defined as follows:

- P_{it} = security price of the firm at the end of period t,

- P_{it-1} = security price of the firm at the beginning of period t,

- Div_{it} = cash dividends for period t.

- Returns were calculated for a 12 month period ending at the fiscal year-end.

Firm Size

The relevance of voluntary disclosure may be influenced by firm size, which is identified as a significant explanatory variable in explaining variation in firm value. Firm size has been examined as a factor related to value relevance. Larger firms receive more media coverage and other forms of public attention than smaller firms do, and consequently, stock prices of larger firms either incorporate more public information about the firm's future prospect or integrate such information more quickly than smaller firms (Ben Naceur & Omrane, 2010). A number of theoretical explanations for expecting a positive relationship between company size and firm value were provided (Wang, et al; 2008).

Firm size = logarithm (assets)

The use of the logarithm is justified by the objective of mitigating heteroskedasticity problems, consistent with prior studies.

Firm Profitability

More researchers have found a positive relationship between profitability and firm value (Hossain & Hammami, 2009). Agency theory suggests that managers of larger profitable companies may wish to disclose more information. With respect to profitability, it is expected that firm value has a positive correlation with profitability, since it is likely that investors in Tunisia pay close attention to profit. Performance was measured by return on assets ratio (ROA):

ROA = earnings / total assets.

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Table 3: Definition and measurement of variables

Variables	Abbreviation	Measurement	Expected signs
Dependent variable Firm value	RET	The security return during an exercise	
Independent variable Disclosure index in annual reports	BOTS	Botosan (1997) index modified.	(+)
Control Variables Size Firm performance	Size ROA	Logarithm (assets) Earnings / total assets	(+) (+)

Empirical findings and discussion

We have used STATA to make the different descriptive statistics and the regression of this sub-section. So, table 4 provides descriptive statistics for the variables. It shows that, on average, listed non-financial Tunisian companies publish 23,8% of the total list of items of disclosure (36 items) with a minimum of 11,2% and a maximum of 36,8%. This result is comparable to those obtained in the Saudi Market (Naser and Nuseibeh, 2003) and in Egypt one (Hassan, et al; 2009) where the average rates for voluntary disclosure were 28% and 48% respectively. It is also observed that log assets ranged from 6, 43 to 8,93, with a mean of 7,96. It permits us to conclude that the Tunisian firms are of average mean size. The profitability of assets varies between a negative performance of 21, 53% and an extreme value positive of 27, 61%, with a mean of 5, 48%.

Table 4 Descriptive statistics

Variables	Mean	Maximum	Std. Deviation	Minimum
RET[a]	0,078	3,141	0,518	-1,50
BOTS[b]	0,238	0,368	0,069	0,112
Size[c]	7.9652	8.9387	0.4678	6.4297
ROA[d]	0.0548	0.2761	0.0658	- 0.2153

[a]RET=the security return during an exercise; [b]BOTS= disclosure index of annual reports; [c]SIZE= logarithm (assets); [d]ROA: Earnings / total assets

Correlation Analysis

We use a non parametric-correlation analysis to test the possible relationship between the independent variables and to avoid the problems of multicollinearity. We verify this condition while resorting to Pearson correlation matrix and variance Inflation Factors (VIF) and tolerance coefficients. These are computed for each explanatory variable in the multiple-regression models. According to (Bryman & Cramer; 1997), Pearson's correlation coefficients should not be considered harmful until they exceed 0, 8 or 0,9.

Table 5 presents the correlation matrix of the dependent and continuous variables, from which, it has been observed that the index of voluntary disclosure has negative although no significant correlations with firm value. However, there is a positive and significant correlation with firm value for firm size and firm performance. This means that voluntary disclosure does not add relevant information for Tunisians investors. Consequently, they do not rely on such information to make decisions, they prefer traditional ways to collect the information they need (Loukil, et al; 2010). Such a view emerges from the findings of other studies in this area, which suggest that the association between firm value and disclosure is complex and depends on the interplay of a number of factors such as the context (Hassan, et al, 2009).

However, it is advisable to analyze the results from a multiple regression that controls for the influence of control variables affecting firm value such as firm size and firm performance.The absence of the multicollinearity problem between the variables is also justified by VIFs test in which all the variables have a value lower than 3 with a global mean equal to (1,41)[1].

Table 5 Correlation matrix

Variables	RET	BOTS	Size	ROA	VIF
RET	1,000				
BOTS	-0,092	1,00			1,09
Size	0,409**	0,08	1,00		1,38
ROA	0,413**	0,23	0,23	1,00	1,76

.*. **: statistically significant for the threshold values of 5% and 1% respectively

Multivariate Analysis

To estimate the model below, we used software 'STATA 9' while carrying out regression on panel data, with white heteroskedasticity[2]consistent standard errors and covariance, which have two dimensions: an individual dimension indicated by index i representative the firm and a temporal dimension indicated by the index t and indicating the period of the study considered. Table 6 provides the results of estimates of the linear regression of our model.

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[1] The average VIF is computed by summing all VIF values in the last column located in table 4 and then divided by the number of explanatory variables.
[2] Heteroskedasticity is an issue, given that different sizes of companies are included in the sample. STATA estimates covariances that are robust to general heteroskedasticity.

Table 6 regression results

$$RET_{it} = \beta_0 + \beta_1 BOTS_{it} + \beta_2 SIZE_{it} + \beta_3 ROA_{it} + e_{it} \quad (3)$$

Variable	β	Sig.
Constant	-3,428	- 9,576**
BOTS	-2,578	- 0,740
SIZE	0,63	14,01**
ROA	0,340	6,602**
Adjusted R2		0,616
F-Value		8,34
Sig.		0,002
Durbin-Watson		1,324

Sig .*. **: statistically significant for the threshold values of 5% and 1% respectively.

Results of the OLS regression in table 6 show that the F-value is 8,34 (p=0,002). The result statistically supports the significance of the model. The adjusted coefficient of determination (R2) indicates that 61,1% of the variation in the dependent variable is explained by variations in the independent variables. This means that independent variables explain 61,1% of the variance in firm value. The coefficient representing size and ROA are statistically significant, while the coefficient of BOTS (the voluntary disclosure index) is not statistically significant.

This result is unexpected. Indeed, we have argued, on the basis of theoretical studies and empirical literature, even though limited that more information adds value to companies. Although, we report a negative but insignificant relationship between firm value and voluntary disclosure. This result is similar to that of (Hassan, et al; 2009), who find no effect of voluntary information disclosure on Egyptian firms' value. In Tunisian context, recently, (Loukil, et al; 2010) argue that the level of information disclosure, proxied by Botosan index has no effect on liquidity. Moreover, (Mattousi, et al; 2004) find that information voluntarily disclosed in annual reports reduces information asymmetry and improves stock liquidity. The main explanation of the different findings is the use of different research method and the construction of the index disclosure. In this line, (Botosan & Plumbee, 2002) find that the benefits of increased disclosure are sensitive to the type of disclosure being made as the market responds differently to different types of disclosure1. This idea supports the argument that voluntary disclosure will take place only if the perceived benefits exceed the perceived costs (Marston & Polei, 2002). Thus, we conclude that in Tunisia as in other Arabic countries (for example Egypt, Jordan and Qatar), firms do not disclose enough information to investors because of social and cultural characteristics. So, there is a competitive cost (competitive disadvantage) for firms revealing more information voluntarily and tendency towards secrecy in such countries (Haddad, et al; 2009). Moreover, with regard to the size and ROA, our research shows a positive and

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[1] Hassan et al (2009) show that voluntary disclosure has no significant association with firm value. Although, it is significant when considered jointly with mandatory disclosure using the Wald test of joint significance.

significant relationship to the firm value. This result is in conformity with that found by (Hassan, et al; 2009).

Conclusions

The objective of this study was to examine empirically the association between voluntary disclosure and firm value for Tunisian non-financial listed companies.

We have, first, revealed through a questionnaire the perception of external auditors towards value relevance of voluntary disclosure published in the annual reports. We conclude that external auditors discern that the politics of voluntary disclosure in the annual reports is minimalist. They have identified several information requested by investors and no disclosed by the majority of non-financial companies listed on the BVMT, Especially, forward-looking, strategic and competitive information. External auditors, report that that managers want to meet or beat earnings benchmarks to (i) build credibility with the capital market; (ii) maintain or increase stock price and improve the external reputation of the management team.

We then verified this relation on a sample of 20 Tunisian firms listed on the BVMT over a period spanning from 2000 to 2008. Using panel data, the regression results show, after controlling for firm size and firm performance a negative and insignificant relationship between voluntary disclosure and firm value. This lack of statistical robustness for voluntary disclosure enabled us to advance that Tunisian investors do not rely on information voluntarily disclosed in annual reports. This finding is consistent with the predictions of analytical accounting models, which emphasize the complex interplay of factors determining disclosure effects such as the context of study and the type of disclosure,

Our research has contributed to the identification of the relation between the voluntary disclosure and firm value for non-financial listed firms. In fact, there is a little empirical evidence with regard to this relationship in an emerging capital markets.

Our study presents some limitations. First, since we questioned external auditors, we should take into account the probability of misleading information that could be provided by some of these individuals and additional information that may be given by the internal auditors and financial analysts. Second, we have neglected the type of disclosure index in the regression model. Indeed, several type of disclosure has been validated in developed countries such as mandatory index, governance index, financial and no financial index. Third, due to missing data we were unable to test for fixed effects in our panel data analysis. Finally, this research can be improved by increasing the size of the sample. Because, availability of data limits our ability to select random sample. Further research could take a number of directions. It would be interest to assess the disclosure quality of Tunisian listed firms using various proxies, such as audit quality, management forecasts, earnings quality and governance quality. Another extension of this research is to conduct a comparative study among a number of different countries in the North African Region.

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References

Alford, A.W., Jones, J.J. & *Zmijewski*, M.E. (1994) Extensions and violations of the statutory SEC form 10-K filing requirements. *Journal of Accounting and Economics* 17 (2), 229-254.

Alford, A.W., Jones, J.J., Leftwich, R. & Zmijewski R. (1993).The relative informativeness of accounting disclosures in different countries. *Journal of Accounting Research* 31, 183−223.

Ali, A. & Hwang, L. (2000) Country-specific factors related to financial reporting and the value relevance of accounting data. *Journal of Accounting Research* 38, 1-21.

Aljifri, K. (2008) Report disclosure in a developing country: The case of the UEA. *Advances in Accounting* 24, 93-100.

Alsaeed, K. (2006) The association between firm-specific characteristics and disclosure: The case of Saudi Arabia. *Managerial Auditing Journal* 21 (5), 476-496.

Anondarjan, A. & Hassan, I. (2010) Value relevance of earnings evidence from middle eastern and north African countries. *Advancing in Accounting, incorporating Advances in International Accounting* 26 (2), 270-279.

Baek, J., Kang, J. & Park, K. S. (2004) Corporate governance and firm value: Evidence from the Korean financial crisis. *Journal of Financial Economics* 71 (2), 265−313.

Ball, R. & Brown, P. (1968) An empirical evaluation of accounting income numbers". *Journal of Accounting Research* 6, 159-177.

Barth, M. E., Beaver, W. H. & Landsman, W. R. (1996) Value relevance of banks' fair value disclosures under SFAS No. 107. *The Accounting Review* 71, 513-537.

Ben Naceur, S. & Omrane, M. (2011) The effects of bank regulations, competition, and financial reforms on banks' performance. *Emerging Markets Review* 12 (1), 1-20.

Botosan, C.A. & Plumlee, M.A. (2002) A re-examination of disclosure level and the expected cost of capital. *Journal of Accounting Research* 40 (1):21-40.

Botosan, C.A. (1997) Disclosure level and the cost of equity capital. *Accounting Review* 72 (3), 323-350.

Bradbury, M.E. (1992) Voluntary disclosure of financial segment data: New Zealand evidence. *Accounting and Finance* 32 (91), 15–26.

Bryman, A. & Cramer, D. (1997) Quantitative data Analysis with SPSS for windows. London: Routledge.

Burgstahler, D. & Dichev, L. (1997) Earnings management to avoid earnings decreases and losses", *Journal of Accounting and Economics* 24 (1), 99-126.

Bushee, B.J., Matsumoto, D.A. & Miller, J.S. (2003) Open versus Closed Conference Calls: The Determinants and Effects of Broadening Access to Disclosure Journal of *Accounting and Economics* 34, 149-80.

Chakroun, R. & Mattoussi, H. (2010) La confrontation entre l'offre et la demande d'informations volontaires au niveau des rapports annuels dans un pays émergent: cas de la Tunisie », Crises et nouvelles problématiques de la Valeur, Nice (France, 2010), Working Paper. http://halshs.archives-ouvertes.fr/hal-00479534.

Chen, J.P; Chen, J. & Su, X. (2001) Is accounting market value-relevant in the emerging Chinese stock market? *Journal of international accounting auditing and taxation* 10 (1), 1-22.

Easton, P., Harris, R & Ohlson, J. (1992) Aggregate accounting earnings can explain most of security returns: the case of long return intervals. *Journal of Accounting and Economics*, 119-142.

Filip, A. & Raffournier, B. (2010) The value relevance of earnings in a transition economy: the case of Romania. *The International Journal of Accounting* 45 (1), 77-103.

Frank, J. (2002) Measures of contributions to price discovery to price discovery: A comparison. *Journal of Financial Markets*. 5 (3), 323-32.

Gana, M. & Chemli, C. (2008) Gouvernance et liquidité: Cas du marché boursier Tunisie, *Euro-Mediterranean Economics and Finance Review* 3 (1), 128-139.

Gjerde, Ө., Knivsfla, K. & Sættem, F. (2011) The value relevance of financial reporting in Norway 1965—2004. *Scandinavian Journal of Management* 27, 113-128.

Graham, J.R., Harvey, C.R & Rajgopal, S. (2005) The economic implications of corporate financial reporting. *Journal of Accounting and Economics* 4 (1), 3-73.

Haddad, A.E., AlShattarat, W.K. & Nobanee, H. (2009) Voluntary disclosure and stock market liquidity: evidence from the Jordanian capital market. *International Journal of Accounting, Auditing and Performance Evaluation* 5 (3), 285- 309.

Hakim, F. & Omri, A. (2008) Earnings quality and equity liquidity: evidence from Tunisia. *International Journal of Managerial and Financial Accounting* 1 (2), 147-165.

Harris, T., Lang, M. & Moller, H. (1994) The value relevance of German accounting measures: an empirical analysis. *Journal of Accounting Research* 32, 187-209.

Hassan, O.A.G., Romilly, P., Giorgioni, G. & Power, D. (2009) The value relevance of disclosure: Evidence from the emerging capital market of Egypt. *The International Journal of Accounting* 44 (1), 79-102.

Hayn, C. (1995) The information content of losses. *Journal of Accounting and Economics* 20, 125-153.

Healy, P.M. & Palepu, K.G. (2001) Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics* 31 (1-3), 405-440.

Healy, P.M., Hutton, A. & Palepu, K. (1999) Stock performance and intermediation changes surrounding sustained increases in disclosure. *Contemporary Accounting Research* 16 (3), 485-520.

Hossain, M. & Reaz, M. (2007) Determinants and characteristics of voluntary disclosure by Indian banking companies. Corporate Social Responsibility and Environmental Management Corp. Soc. Responsibility. *Environment Management* 14 (5), 274-288.

Hossain, M. & Hammami, L. (2009) Voluntary disclosure in the annual reports of an emerging country: The case of Qatar. *Advances in Accounting, incorporating Advances in International Accounting* 25, 255-265.

Iatridis, G.E. (2011) Accounting disclosure, accounting quality and conditional and unconditional conservatism. *International Review of Financial Analysis* 20 (2), 88-102.

Kenneth, W. Shaw. (2003) Corporate disclosure quality, earnings smoothing, and earnings' timeliness", *Journal of Business Research* 5 (6), 1043-1050

Lang, M. & Lundholm, R. (1993) Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures. *Journal of Accounting Research* 31 (2), 246-271.

Lang, M. H. Lins K. V. & Miller, D. (2003) ADRs, analysts, and accuracy: Does cross listing in the U.S. improve a firm's information environment and increase market value? *Journal of Accounting Research* 41(2), 317- 345.

Leuz, C. Verrecchia, R. (2000) The economic consequences of increased disclosure. *Journal of Accounting Research* 38, 91-124

Lopes, P. T. & Rodrigues, L. L. (2007) Accounting for financial instruments: An analysisof the determinants of disclosure in the Portuguese stock exchange. *International Journal of Accounting* 42 (1), 25-56.

Loukil, N., Zayani, M.B & Omri, A. (2010) Impact of liquidity on stock returns: An empirical investigation of the Tunisian stock market. *Macroeconomics and Finance in Emerging Market Economies* 3 (2), 261-283.

Manita, R. (2008) La qualité de l'audit externe: proposition d'une grille d'évaluation axée sur le processus d'audit. *M@n@gement* 11 (2), 187-209.

Marston, C. & Polei, A. (2004) Corporate reporting on the Internet by German Companies. *International Journal of Accounting Information System* 5 (3): 285-311.

Matoussi, H., Karaa, A. & Maghraoui, R. (2004) Information asymmetry, disclosure level and securities liquidity in the BVMT. *Finance India* 18, 547-557.

Naser, K. & Nuseibeh, R. (2003) Quality of financial reporting: Evidence from the listed Saudi non-financial companies. *International Journal of Accounting* 38, 41-69.

Neuman, W.L. (2000) Social Research Methods: Qualitative and Quantitative Approaches, Allyn and Bacon, Boston, MA.

Patelli, L. & Prencipe, A. (2007) The Relationship between Voluntary Disclosure and Independent Directors in the Presence of a Dominant Shareholder. *European Accounting Review* 16 (1), 5-33.

Raffournier, B. (1995) The determinants of voluntary financial disclosure by Swiss listed companies", *The European Accounting Review* 4 (2), 261-280.

Wang, K., O S. & Claiborne, M.C. (2008) Determinants and consequences of voluntary disclosure in an emerging market: Evidence from China", *Journal of International Accounting, Auditing and Taxation* 17 (1), 14-30.

Young, S. D & O'Byrne, S. F. (2001) EVA and value-based management: A practical guide to implementation". New York: McGraw-Hill.