The Impact of Corporate Social Responsibility Disclosure in Terms of Quantity and Quality on the Financial Performance of Companies in Tunisia

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ABSTRACT

This article aims to study the relationship between the disclosure of corporate social responsibility (CSR) and the financial performance of Tunisian companies. Two measures are used to determine the CSR disclosure index: The first in terms of quantity is based on an unweighted approach from the Cooke (1991) study and the second in terms of quality is based on a system weighting of the qualitative characteristics of the information, referring to the voluntary declarations, in the annual reports of a sample of listed companies. The empirical results reveal that the amount of CSR disclosure has a positive effect on the financial performance of companies regardless of their size, their risk and debt levels, this allows us to show that the stakeholders generally give their trust to companies that have socially responsible behavior and a regular disclosure system. The results also show that the quality of CSR disclosure has a positive effect on the financial performance of companies as measured by economic, financial or stock market profitability

Keywords: Social Responsibility, Financial Performance, Economic Profitability, Return on Equity
JEL Classifications: G32, C12

1. INTRODUCTION

According to Shehata (2014), "Transparency and disclosure is one of the pillars of corporate governance. Several scandals have occurred around the world because of the absence or misrepresentation of the company. Different stakeholders use corporate disclosure in their decision-making process."

Gibbins et al. (1990) described as financial information the intentional dissemination of financial and non-financial information, whether qualitative or statistical, voluntary or mandatory, or through formal or informal channels of communication.

There are multiple platforms on which corporate information can be disclosed, including annual reports, interim reports, analyst presentations, websites and prospectuses. One of the most formal and important means of disclosure is the annual report; However, this is not enough, especially in the context of a capital market.

According to Gray et al. (1997) voluntary business disclosure can be defined as an admission beyond requirements, revealing the free choices made by a company's management to provide relevant information to users who take decisions based on the company. In addition, companies are required to provide good and bad information to improve the efficiency of the investment and to create a fair environment for stakeholders.

Hooks and Van Staden (2011) assume that the importance of full disclosure, as well as a faithful presentation of information, is essential for a wide range of users, precisely those who use this information to make informed decisions.

Haji (2013) points out that corporate disclosure practices, including social and environmental disclosure, differ from country to country. Essentially, corporate social responsibility (CSR) disclosure is a representation of CSR business activities as reported in their annual reports. As a result, several studies have focused on the disclosure of CSR as well as the identification of the factors that lead to the disclosure of CSR activities.

In recent decades, several studies have focused on the relationship between social performance and financial performance. However, the debate about the contribution of CSR to the overall performance of the company continues to divide.

The theory of legitimacy, agency theory and stakeholder theory are the three theories most widely used to develop a theoretical framework to study the relationship between CSR and the financial performance of the company. Studies on this topic have yielded mixed results and have provided different explanations on the relationship between disclosure and financial performance.

Dyduch (2017) in his study analysed the quality of financial environmental disclosure in annual reports of companies listed on the Warsaw Stock Exchange, He establish that there was a positive dependence between the level of disclosure and the profitability.

Several studies suggested that business disclosure has a positive association with the value of a business. Prakash et al. (2017) showed that the levels of voluntary disclosure in annual reports are related to the level of enterprise value, measured by market capitalization.

Elzahar and Hussainey (2012) examined the effect of disclosure on KPIs and enterprise value. They find a significant negative relationship between CSR disclosure and the cost of capital, but a positive relationship between ICR disclosure and the value of a company.

Adams et al. (1998) showed that disclosure of intellectual capital has a significant positive effect on market capitalization.

Singh et al. (2017) analysed the impact of a firm's investments in the CSR on its market value. Their study advances that the CSR dimensions contribute to increasing Chinese and Hong Kong firm value.

Abdullah et al. (2009). examined the relationship between financial performance of banks in various Asian countries and social disclosure. They found that the quantity and quality of financial information is positively associated with the financial performance of banks.

Several studies have presented mixed results on the relationship between CSR activities and the financial performance of companies. Hackston and Milne (1996) arrived at the conclusion that no definitive empirical consensus existed on the association between social performance and financial performance. The association is still inconclusive and depends on the nature of the models and empirical approaches used.

Dhanani (2005) investigated the influence of CSR disclosure quantity and quality of financial institutions on their value creation. Their study presents a positive link between the quality of CSR and value creation. Which encourages companies to strategic disclosure of CSR.

The objective of our work is to examine the effect of CSR on the financial performance of Tunisian companies listed on the Tunis Stock Exchange based on CSR disclosure in terms of quantity and quality. There is very little research on the impact of the quantity and quality of CSR disclosure and business value. Our study is considered among the first to examine the impact of the quantity and quality of CSR disclosure on the performance of listed companies in Tunisia.

2. CSR DISCLOSURE MEASURES

Ullmann (1985) view disclosure as a control mechanism that not only improves efficiency but also protects the interests of stakeholders. However, the concept of disclosure is complex to measure directly. The financial literature has developed two measures of CSR disclosure the first measure is in terms of quantity while the second measure is in terms of quality.

Barako et al. (2006). notes that the concept of disclosure does not have a universally accepted definition, but can be defined as information advanced by a reporting entity to provide lenders, capital providers, investors potential investors and creditors to improve their decision-making.

The quality aspect of disclosure or information is beneficial to the decision that arises from information asymmetry claims as well as agency conflicts between insiders (managers) and external stakeholders. The quality of disclosure in reports reduces the asymmetry of information and is therefore beneficial to users.

2.1. CSR Disclosure Measure in Terms of Quantity

The index of CSR in terms of quantity is composed of six categories of information:
1. Employees: The information includes employee profile, benefits, service allowance, equal opportunity, pensions and work environment. It is important to emphasize that the social responsibility towards the employees goes beyond the terms and conditions envisaged in the contract of work insofar as the companies are held to answer the waitings of their employees by ensuring the motivation of the employees and taking care of their well-being. Personnel data, training and development, workplace, and retirement benefits and benefits are some of the variables presented.
2. Community: These are community-related aspects, which show the company's contribution to the national economy and community investment. These activities include educational support, social loans, social activity support, health and safety, respect for human rights, funding for scholarship programs, volunteering and the creation of non-profit projects.
3. Environmental issues: This is information that includes environmental policy statements, use of recycling materials, sponsorship of environmental protection activities, design

of facilities that are in harmony with the environment, waste management, pollution and conservation of natural resources, commitment to energy management policy.

4. Products and services: They focus on aspects of quality based on the development and innovation of new products, the quality of products and services offered and the orientation campaigns, as well as ISO and other prizes awarded to companies.

5. Governance: Is concerned with the company's philosophy, the Board's code of conduct and committees, the ownership and governance structure and the commitment of the stackeholders.

At the level of our study the unweighted method of CSR disclosure in terms of quantity is based on the questionnaire survey data. Respondents are asked to rate the utility they attach to items on a Likert scale. The values attached to the elements disclosed in the annual reports are judged: (1) Perfectly useless, (2) useless, (3) somewhat useless, (4) useful, (5) very useful. The weight represents the arithmetic average of the points awarded by the respondents.

2.2. CSR Disclosure Measure in Terms of Quality

The disclosure index in terms of quality is based on the four qualitative characteristics of the information: Relevance, faithful representation, comprehensibility and comparability, the scores related to the elements are added and subsequently divided by the total number of elements. The sub-scores of each qualitative characteristic are measured and a score is calculated to represent the overall measure of CSR disclosure in terms of quality. This aggregate score is a function of four measures (sub-scores) representing the attributes of the quality of information, namely:

1. Relevance: According to the IASB (2010), information is considered relevant if it has a great ability to create a change in the decisions of users or consumers. Relevance is also a tool used to assess the value of stakeholders in a company.

2. Fidelity representation: The IASB (2010) considers that information is accurately representative if it is natural, complete and free from material error. In addition, an annual report should include information that is not only understandable but also accurate. The measurement of faithful representation is based on five elements related to verifiability, neutrality, lack of material error, and completeness.

3. Understanding: The IASB (2010) presents the understanding of knowledge related to quality information that allows consumers to infer meaning. Understanding is enhanced when information is categorized and presented in a concise manner. Understandability is achieved when information is sufficient and of high quality to enable users to understand its meaning.

4. Comparability: The IASB (2010a) asserts that comparability is the ability of information to allow users to identify differences and similarities between two sets of economic phenomena. This helps information consumers identify trends and analyze company performance over time.

At the level of our study, the quality of the information is established from the annual reports based on the work of Chakroun and Hussainey (2014). The quality of information is assessed from a quality index that includes a disclosure scale divided into six categories: Entity, policy and management systems, environmental impacts, stakeholders, financial and general impacts.

We use a 5 point scale (from 0 to 4) for most indices: 0 = Undisclosed information; 1 = Minimal coverage and briefly mentioned; 2 = Descriptive policy; 3 = Quantitative measure of the environmental impact; 4 = Extraordinary.

2.3. Study of the Relationship between CSR and Financial Performance

Theories that determine the relationship between CSR and the financial performance of the company are divided into three categories: The first category suggests the existence of a positive relationship between CSR and performance. The second category implies the existence of a negative relationship between CSR and performance? while the third category indicates a neutrality and a lack of links between the two dimensions.

Stakeholder theory assumes that CSR has a positive impact on the financial performance of the company and is an indicator of the company's ability to effectively satisfy the various stakeholders.

According to Adams et al. (1998) societal responsibility is an indicator of good management skills, which leads to lower costs and higher profits. Companies deemed socially responsible have a skilled workforce that allows them to reduce operating costs and increase profitability.

Freeman (1984) assumes that business relationships should include all stakeholders because an improvement in social activity leads to privileged relationships with different stakeholders. It focuses on relations based on commercial transactions, the dependencies of authorities and the legitimacy of claims.

Competitive advantage theory assumes that companies must establish an attractive competitive advantage for all of its customers that positively impacts the company's financial performance.

Hooks and Van Staden (2011) state that competitive advantage is based on value creation. A firm has a competitive advantage if it creates more value than its competitors and if it is able to break even.

CSR allows companies to be prepared for rapidly changing demands and to be able to adapt to crises. CSR has the advantage of developing the external reputation of the company allowing it to be more attractive to customers, investors and bankers which has a positive impact on its performance.

The theory based on the "trade-off hypothesis" is based on the neoclassical economic theory of Friedman (1960) which assumes the existence of a negative relationship between CSR and performance. It indicates the presence of trade-offs among stakeholders for profit maximization and CSR, which results in a negative relationship between CSR and the financial performance of the company. Friedman and Miles (2001). show that the social

performance of companies could reduce the financial performance of companies because CSR funds use resources that could be used in a larger way.

The theory of good management, taken up by Wang et al. (2016), assumes a neutral relationship and an absence of links between the two dimensions. She argues that a company that is always looking for the best ways to improve its competitive advantage can improve its financial performance. The company by satisfying its stakeholders and ensuring a good reputation ensures a competitive advantage.

According to Mangena et al. (2012) good management practices are positively linked to a good CSR policy that improves the company's relationship with its various stakeholders, to increase its competitive advantage and its financial performance.

The analysis of the relationship between CSR disclosure in terms of quality and quantity is controversial. Several studies claim that the performance of a company can be influenced in the same way by the quantity as the quality of the CSR disclosure. Socially responsible companies provide a better work environment for their own employees. The implementation of a CSR strategy is an important element of competitiveness.

CSR disclosure should be considered as a core component in the business, however, CSR costs do not necessarily lead to visible financial gains.

2.4. Assumptions
To study the relationship between financial performance and disclosure of CSR, We propose two hypotheses:

Hypothesis 1: There is a positive relationship between the financial performance of the company and the amount of CSR disclosure.

This assumption suggests that financial performance is positively related to the amount of CSR disclosure. Companies that demonstrate socially responsible behavior and a regular disclosure system reflect good managerial policy and the ability to consolidate discretionary projects, leading to increased financial performance. The most financially efficient companies are therefore the most socially efficient companies that have regular disclosurein their CSR policy. The amount of disclosure helps to reduce asymmetric information among stock market participants.

Hypothesis 2: There is a positive relationship between the financial performance of the company and the quality of CSR disclosure.

This assumption suggests that financial performance is positively related to the quality of CSR disclosure, investors place an interest in socially responsible companies that disclose transparent and precise information about their CSR policy which has a positive impact on their book values and stock.

3. METHODOLOGY

The study is based on the annual reports of companies listed on the Tunis Stock Exchange for a total of 40 listed companies, which represents a sample of 30 observations for each variable. The study period is spread over the years 2014, 2015 and 2016.

The annual reports were collected from the official websites of the companies of the Tunis Stock Exchange website www.bvmt.com.tn. Governance data and executive profiles were collected manually from the companies' annual reports.

The study of the impact of CSR on the stock market performance of Tunisian companies was conducted using multiple linear regressions. The methodology used is the econometrics of Panel data over a fairly stable period of the life of the BVMT.

3.1. Independent Variables
The study aims to study the influence of CSR disclosure in terms of quantity and quality on the company's performance. The main independent variables are CSR disclosure in terms of quantity and quality. The scale of measurement of CSR quantity borrowed in this work is based on an unweighted approach from the Cooke (1991) study, this is the Likert scale. The quality of the information is evaluated from a quality index based on a system of weighting the qualitative characteristics of the information and includes a scale of disclosure divided into six categories. This scale constitutes an application of the scale used in the work (Chakroun and Hussainey (2014)).

3.2. Dependent Variables
Measures of financial performance: Two types of measures are used in this research.

3.2.1. Accounting measures
The return on ROA assets and return on equity ROE.

These measures are widely used in the financial literature. Accounting measures give a historical idea of the accounting profitability of the company and encompasses a wide range of performance indicators.

The ROA shows how companies increase their profits by using total assets over a period of time. If the ROA is high, it indicates that the company can make a profit from its assets. ROE shows how companies use their capital. If the ROE is high, the management of the company is efficient.

3.2.2. Market-based measures
Such as the return of the securities Beta Alpha, Standard deviation of return and Earnings per share.

Market-based measures are less sensitive to accounting rules and management manipulations because they refer to valuations, investor expectations and corporate performance. However, market-based measures have their weaknesses; in the case of asymmetric information, market-based measures may not reflect a fair valuation of the value of the business.

3.3. Control Variables
Several variables present relationship between financial performance and CSR policy. They are introduced as control variables.

3.3.1. Risk
The risk measured by the standard deviation of return or Beta.

Risk is a variable, which can control the relationship between CSR and financial performance as low-risk firms have a stable return model, which is very favorable for investment. In social activities and can have a positive impact on the financial performance of the company.

Generally the most socially responsible companies are the best managed and have the lowest risk.

3.3.2. The size
The size is measured by the logarithm of the turnover.

Large companies tend to have greater social impact, given the importance of their activities and more commitment to social actions, however, do not attach importance to social activity.

Barako et al. (2006) argued that firms, as they grow, develop their CSR policies to better respond to market expectations and stakeholder demands. Size is positively related to CSR.

3.3.3. Capital structure
The capital structure is measured by the debt/equity ratio.

The purpose of the debt is to support the growth of the company and improve its performance, it allows the financing of the needs of the operation. The CSR policy also entails costs that can be weighed on the company's budget. The constraints of the debt can reach high thresholds, the socially involved company must be in honor of its commitments to its donors.

4. PRESENTATION OF THE MODELS

The Financial Performance of the company is determined through three variables namely:

Market performance, economic profitability and return on equity.

The main explanatory variable that makes it possible to check whether CSR has an impact on the financial performance of the company is studied thanks to two indicator variables of the CSR disclosure policy based on quality indicators and quantity indicators: CSR Quantity and CSR Quality.

The control variables have been integrated in order to intervene in the explanation of the company's performance in terms of Company Size Capital Structure and risk. Our study allows to present Six regression equations.

$$ROA = \alpha + \beta_1 CSR_{Quantity} + \beta_2 Size + \beta_3 Structure + \beta_4 Risk + \xi_t \qquad (1)$$

Where ROA is the average return on assets ratio that corresponds to net income divided by total assets. The CSR quantity is the CSE disclosure score in terms of unweighted quantity defined bu Likert Scale equals (1: Perfectly useless, 2: Useless, 3: Not very useful, 4: Useful, 5: Very useful).

Size represents the logarithmic function of total assets, the structure of capital is calculated by dividing the debts by equity, risk is determined by the standard deviation of returns.

α is the constant, β_1, β_2, β_3, β_4 are the regression coefficients and ξ_t is the error terme.

$$ROE = \alpha + \beta_1 CSR_{Quantity} + \beta_2 Size + \beta_3 Structure + \beta_4 Risk + \xi_t \qquad (2)$$

$$BPA = \alpha + \beta_1 CSR_{Quantity} + \beta_2 Size + \beta_3 Structure + \beta_4 Risk + \xi_t \qquad (3)$$

Equation (2) is based on the ROE that corresponds to the return on equity and is the ratio of net income to equity.

Equation (3) is based on market performance measured earnings per share distributed by the company.

$$ROA = \alpha + \beta_1 CSR_{Quality} + \beta_2 Size + \beta_3 Structure + \beta_4 Risk + \xi_t \qquad (4)$$

$$ROE = \alpha + \beta_1 CSR_{Quality} + \beta_2 Size + \beta_3 Structure + \beta_4 Risk + \xi_t \qquad (5)$$

$$BPA = \alpha + \beta_1 CSR_{Quality} + \beta_2 Size + \beta_3 Structure + \beta_4 Risk + \xi_t \qquad (6)$$

Equations (4), (5) and (6) verify the existence of a positive relationship between the quality CSR and the financial and stock market performance of the company.

5. DESCRIPTIVE STATISTICS

The descriptive statistics of the variables studied were based on three samples to define the performance differences between: the companies of the whole sample, a reduced set of companies that apply the best CSR Quantity strategy and a reduced set of companies that present the best CSR strategy Quality.

Table 1 details the descriptive statistics of all the variables of the proposed models and concern the CSR disclosure indices in terms of quantity and quality, the control variables and the various business performance indicators.

We note that in terms of CSR disclosure index quantity. The maximum CSR disclosure score is 0.7 while the minimum score is 0.04. The average CSR disclosure is 0.29 for the entire business sample, indicating a relatively low level of CSR disclosure. The standard deviation is 0.4 and reflects a low level of dispersion compared to the mean.

The index of disclosure of CSR quality is rather weak with a mean value 0.09 which reveals that the CSR disclosure index in terms of quality is lower than the CSR disclosure index in terms of quantity in Tunisian companies. In addition, the minimum and maximum values of the CSR disclosure in terms of quality are 0.02 and 0.43 respectively with a dispersion average of 0.08.

The Accounting and Stock Market Performance measures based on the ROE, ROA and earnings per share indicators examine the impact of CSR disclosure on the performance of Tunisian listed companies. The average value of the ROE is 0.097. The minimum

Table 1: Descriptive statistics

Variables	Minimum	Maximum	Average	Standard deviation
ROA	−0.34	0.54	0.004	0.197
ROE	−1.04	0.43	0.0913	0. 0.232
Earnings per share	−0.86	2.16	0.318	0.435
Debts/total equity	0.10	0.84	0.258	0.165
Log of total assets	7.43	20.09	12.41	0.320
Risk	0.09	0.96	0.24	0.286
CSR quantity	0.04	0.708	0.139	0.143
CSR quality	0.02	0.433	0.099	0.082

CSR: Corporate social responsibility

Table 2: Descriptive statistics of companies with the best CSR quantity strategy

Variables	Minimum	Maximum	Average	Standard deviation
ROA	0.09	0.54	0.214	0.093
ROE	0.03	0.42	0.303	0.173
Earnings per share	0.26	2.16	0.83	0.085
Debts/total equity	0.42	0.84	0.502	0.231
Log of total assets	14.86	20.09	17.41	0.092
Risk	0.05	0.92	0.26	0.167
CSR quantity	0.43	0.50	0.4600	0.003
CSR quality	0.29	0.373	0.250	0.066

CSR: Corporate social responsibility

Table 3: Descriptive statistics of companies with the best CSR quality strategy

Variables	Minimum	Maximum	Average	Standard deviation
ROA	−0.013	0.467	0.028	0.153
ROE	0.03	0.332	0.134	0.243
Earnings per share	−0.26	2.086	0.83	0.485
Debts/total equity	0.22	0.654	0.438	0.031
Log of total assets	0.07	0.85	0.19	0.286
Risk	12.86	18.79	14.41	0.052
CSR quantity	0.13	0.50	0.469	0.063
CSR quality	0.29	0.433	0.349	0.066

CSR: Corporate social responsibility

and maximum are 0.43 and -1.04, respectively. In addition, the average value of ROA is 0.004, the minimum is −0.34 and a maximum of 0.54.

The average earnings per share value is 0.318 with a maximum of 2.16.

In terms of control variables, the size of enterprises measured by the log function of total assets varies between 20.09 and 7.43 with an average value of 12.41. The capital structure ratio varies between 0.84 and 0.10 with an average of 0.258, which shows that the financing of companies is done by using indebtedness, the risk measured by the standard deviation of the returns reaches 0.96 with a minimum of 0.09 and an average of 0.24.

Table 2 presents the descriptive statistics of compagnies with the best CSR quantity Strategy. We note that the performance is growing considerably for companies with better CSR Quantity disclosure policy. The average ROA, ROE and earnings per share are 0.214, respectively; 0.303 and 0.83. The increase in the level of disclosure of CSR is an indicator that companies are trying to reduce the communication gap between them and stakeholders with an attempt to improve their images. Positive developments in the disclosure of socially responsible business activities result

from the fact that some companies recognize the important role of CSR disclosure in improving public opinion and generating positive business development.

For companies that follow the best CSR quality policy, Table 3 presents the descriptive statistics of basic variables. we also see an improvement in performance with average ROA, ROE and earnings per share values of 0.467, 0.332 and 2.086. Stakeholders place trust in the company based on the quality of communication and the transparency of information. They place more importance on the amount of information that is disclosed as a continuous signal of the financial stability of companies.

6. PRELIMINARY STATISTICS

We develop the preliminary statistical tests before performing the multiple regression tests on the panel data. The study of normality is carried out by studying the values of skewness and kurtosis of the different data. The Pearson correlation matrix and the variance inflation factors (VIF) test make it possible to verify the existence of a multicollinearity between the independent variables.

Table 4 presents the correlation matrix between independent and dependent variables. We note that there is a positive relationship

between CSR Quantity, CSR Quality and the three performance indicators; The results show that CSR performance quantity has a significant impact on the company's economic profitability and financial profitability.

There is also a positive correlation between CSR Quantity and firm size, with larger companies reporting higher CSR results than smaller companies. The financial risk measured by the standard deviation of returns has a negative relationship with CSR quantity and CSR quality. It is not significantly correlated with the other variables, a company with a high level of risk should invest more in CSR actions to reassure its shareholders.

The Pearson correlation matrix results globally show values <0.8, which allows us to conclude that the variables are not highly correlated.

We study multicollinearity problems by examining the VIF. According to Katos (2004), if the VIF value of a variable exceeds ten, then this variable is colinear to the others. By observing the VIFs for the studied variables we conclude the absence of multicollinearity between the variables, since the range of VIF varies from 1.02 to 1.28.

7. THE RESULTS OF THE REGRESSIONS

The regression results were based on the estimation of the 6 models defined to meet the two basic assumptions previously proposed and to test the impact of CSR quantity and CSR quantity on the financial performance of the company. Heteroscedasticity and autocorrelation problems were detected at the model level. In order to address this problem, the regressions were performed based on the MCG method, which rendered the model results

Table 4: Pearson correlation matrix

Variables	VIF	ROA	ROE	Earnings per share	Debts/total assets	Risk	Log of total assets	CSR quantity	CSR quality
ROA	1.09	1.000							
ROE	1.16	0.022	1.000						
Earnings per share	1.23	0.199	0.042	1.000					
Debts/total equity	1.28	−0.334	−0.140	0.234	1.000				
Log of total assets	1.11	0.261	0.326	0.387	0.494	1.000			
Risk	1.02	0.165	0.232	0.179	−0.345	0,048	1.000		
CSR quantity	1.09	0.229	0.417	0.243	−0.107	0.216	0.145	1.000	
CSR quality	1.06	0.186	0.198	0.046	−0.089	0.195	0.123	0.075	1.000

CSR: Corporate social responsibility, VIF: Variance inflation factors

Table 5: Model (1): Regression Analysis

Variables	Unstardadised coefficients		t Student	Sign	Collinear	
	β	Standard error			Tolerance	VIF
Constant	0.063	0.058	1.924	0.059		
CSR quantity	0.084	0. 0.038	2.086	0.007	0.871	1.125
Size	0.048	0.037	1.929	0.023	0.786	1.257
Structure	−0.133	0.011	−1.921	0.037	0.724	1.277
Risk	0.073	0.058	2.917	0.001	0.995	1.002
R²	0.375					
Adjusted R²	0.303					
F Test	33.74					
Prob (F-statistics)	0.000					
Durbin-Waston	1.814					

CSR: Corporate social responsibility, VIF: Variance inflation factors

Table 6: Model (2): Regression Analysis

Variables	Unstardadised coefficients		t Student	Sign	Collinear	
	β	Standard error			Tolerance	VIF
Constant	0.012	0.086	1.990	0.096		
CSR quantity	0.072	0.049	2.087	0.012	0.516	1.015
Size	0.042	0.087	2.019	0.001	0.627	1.634
Structure	−0.08	0.091	−1.872	0.055	0. 661	1.448
Risk	0.054	0.077	1.912	0.011	0.157	1.601
R²	0.485					
Adjusted R²	0.417					
F Test	43.88					
Prob (F-statistics)	0.000					
Durbin-Waston	1.245					

CSR: Corporate social responsibility, VIF: Variance inflation factors

more meaningful and unbiased with corrected heteroscedasticity and autocorrelation.

The results of the regression estimates show us that model (1) is significant and accounts for 37.5% of the change in ROA profitability in companies. Table 5 shows that the quantity disclosure variable of the CSR quantity is statistically significant which leads to the conclusion that there is a positive relationship between the quantity CSR disclosure index and the ROA.

Control variables are significant at 0.05. This indicates that the equation is reliable. The significant association between the disclosure of CSR quantity and the ROA is consistent with the results highlighted in the studies and confirms Hypothesis 1.

In model (2), the composite measure of financial performance of enterprises is replaced by ROE. The results in Table 6 show a statistically significant relationship between the quantitative CSR disclosure index and the measure of financial performance. The R^2 is 48.5%, which means that the variation in the ROE is explained by the variation of the social responsibility policy by 48.5%, which represents the highest value compared to the two other models.

Model (3) indicates a significant positive association at the 0.05 threshold between earnings per share and the CSR disclosure index quantity. The structural ratio is negative and significant. Table 7 indicates a significant negative relationship between the Company's earnings per share and the level of indebtedness and confirms the moderating effect of risk in the CSR and financial

performance relationship. The adjusted R^2 and R^2 have lower values than those of the two previous models.

The results of model regression estimates (1), (2) and (3) show that there is a positive relationship between the disclosure quantity of the company's CSR policy and its financial performance. The results are significant for the three performance measures, whether they are based on accounting or stock market indicators. Thus, the more the company is socially responsible and that it regularly discloses information on its CSR policy, the more its financial performance increases, since it sends investors reassuring signals of financial stability.

Models (4) and (5) show that the RSEQualité disclosure index is positively related to the financial performance measured by the ROE; Similar results were obtained by replacing the financial performance with the earnings per share model (6). RSE Quality is significantly related to Financial Performance at the 95% confidence level (Tables 8-10).

The models have relatively low R^2 determination coefficients compared to the results of the RSEQuantité disclosure index and range from 39.4% to 25.2%. The values of the Fisher statistics are also decreasing, and are of the order of 29.26 for the model (5) and 12.02 for the model (7).

In all three models, the CSR disclosure variable in terms of quality has a positive effect on financial performance ($\beta 1 = 0.016$, 0.04 and 0.014 respectively). It is statistically significant at a level $\alpha < 0.01$ in models (5) and (6) only.

Table 7: Model (3): Regression Analysis

Variables	Unstardadised coefficients		t Student	Sign	Collinear	
	β	Standard error			Tolérance	VIF
Constant	0.007	0.027	1.840	0.039		
CSR quantity	0.081	0.086	2.259	0.004	0.989	1.278
Size	0.013	0.044	2.672	0.002	0.611	1.125
Structure	0.029	0.061	1.998	0.027	0.690	1.057
Risk	0.047	0.098	1.945	0.008	0.624	1.577
R^2	0.303					
Adjusted R^2	0.231					
F test	29.86					
Prob (F-statistics)	0.000					
Durbin-Waston	2.081					

CSR: Corporate social responsibility, VIF: Variance inflation factors

Table 8: Model (4): Regression Analysis

Variables	Unstardadised coefficients		t Student	Sign	Collinear	
	β	Standard error			Tolérance	VIF
Constant	0.002	0.073	1.435	0.019		
CSR quantity	0.016	0.049	1.978	0.008	0.662	1.510
Size	0.053	0.025	2.029	0.001	0.743	1.347
Structure	−0.09	0.091	−1.948	0.012	0.692	1.444
Risk	0.06	0.0564	2.001	0.029	0.684	1.463
R^2	0.272					
Adjusted R^2	0.201					
F test	18.39					
Prob (F-statistics)	0.000					
Durbin-Waston	1.90					

CSR: Corporate social responsibility, VIF: Variance inflation factors

Table 9: Model (5): Regression Analysis

Variables	Unstardadised coefficients		t Student	Sign	Collinear	
	β	Standard error			Tolérance	VIF
Constant	0.0032	0.021	2.109	0.010		
CSR quantity	0.0409	0.026	1.946	0.002	0.509	1.962
Size	0.0156	0.021	2.039	0.018	0.575	1.738
Structure	−0.0381	0.019	2.440	0.001	0.660	1.515
Risk	0.047	0.098	1.845	0.048	0.634	1.577
R^2	0.394					
Adjusted R^2	0.278					
F test	29.26					
Prob (F-statistics)	0.000					
Durbin-Waston	1.921					

CSR: Corporate social responsibility, VIF: Variance inflation factors

Table 10: Model (6): Regression Analysis

Variables	Unstardadised coefficients		t Student	Sign	Collinear	
	β	Standard error			Tolérance	VIF
Constant	0.042	0.044	1.953	0.056		
CSR quantity	0.014	0.019	2.065	0.009	0.720	1.388
Size	0.046	0.063	2.716	0.007	0.728	1.372
Structure	0.033	0.02	1.997	0.041	0.664	1.506
Risk	0.047	0.098	2.045	0.008	0.634	1.577
R^2	0.252					
Adjusted R^2	0.231					
F test	12.02					
Prob (F-statistics)	0.000					
Durbin-Waston	2.005					

CSR: Corporate social responsibility, VIF: Variance inflation factors

Table 11: Analysis of the variance (ANOVA)

Variables	Sum of squares	df	Mean square	F	Sig
Model 1					
Regression	18.76	3	46.09	37.58	0.000
Residual	4.31	37	26.66		
Model 2					
Regression	15.64	3	43.87	48.51	0.000
Residual	4.14	37	14.11		
Model 3					
Regression	34.86	4	36.72	30.36	0.000
Residual	3.17	29	11.65		
Model 4					
Regression	19.35	4	56.73	27.29	0.000
Residual	3.87	26	29.05		
Model 5					
Regression	21.23	4	49.14	39.40	0.000
Residual	3.09	28	17.56		
Model 6					
Regression	19.27	3	39.43	25.29	0.000
Residual	4.28	37	23.44		

The significance of the rest of the control variables is variable but generally consistent with the previous Pearson correlation results. The coefficient of size is negative and significant for the three models. Larger companies are attracting more attention from external constituents, pushing them to become more involved in environmental management practices to meet the needs of different stakeholders through various CSR strategies.

The coefficient of capital structure that corresponds to the ratio of debt to equity is negative and significant for models (5) and (6), it indicates a significant negative relationship between the accounting performance of the company and the level of indebtedness. The level of risk is negatively related to the company's CSR policy, and influences companies' decisions regarding activities that may generate additional future costs. For the model (7) the relationship between the capital structure and the stock market performance is positive but not significant.

Models (5), (6) and (7) show that there is a positive relationship between the disclosure of CSR in terms of quality and the financial performance of the company. The results allow us to conclude that the quality of the information disclosed has a positive impact on the economic, financial and stock market profitability of companies, regardless of their size, their debt levels and their degree of exposure to risk.

8. THE ROBUSTNESS OF RESULTS

We note that the values of the VIF of the different regressions show the absence of a demulticolinearity problem as all VIFs have values less than 2. This result is also supported by the tolerance tests.

The Durbin-Wu test allowed us to study endogeneity and to test the joint dependence between the independent and dependent variables, and to check the relationship between the explanatory variables and the error term.

The results obtained indicate that the null hypothesis of the Durbin-Wu test is not rejected and that the F test is not significant,

which makes it possible to conclude the absence of a problem of endogeneity in the regressions.

The overall assessment of the relevance of the model is based on Fisher's test. The results of ANOVA analysis in table 11 show that the p-value is of the order of 0.000 for the models retained.

We can conclude that the models are all significant and that the independent variables predict the dependent variables significantly.

9. CONCLUSION

Our study tested the relationship between companies' CSR disclosure policy and their financial performance. The sample consisted of 40 companies listed on the BVMT. The study period was spread over the years 2014-2016. We relied on the multiple linear regression technique using the general least squares method.

The results obtained have shown that there is a positive relationship between the amount of CSR disclosure and the financial performance of companies; the models proposed have tested this relationship for three different financial performance indicators namely economic profitability, the financial profitability and stock market performance. The introduction of control variables such as the financial structure of the company, the size and the risk did not alter the significance of the results.

The results also demonstrated that there is a positive relationship between the quality of CSR disclosure and the financial performance of companies, that disclose transparent and accurate information about their CSR policy.

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