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Is Sustainability Reporting a Business Strategy for Firm's Growth? Empirical Study on the Romanian Capital Market

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Abstract: This study analyzed the impact of sustainability reporting on firms' growth as a result of adopting an environmentally and socially responsible behavior. The information published by companies listed on the main section of the Bucharest Stock Exchange during a period spanning six financial years (2012–2017) was used to assess the influence exerted by the conduct of activities related to sustainability; the integrated reporting of economic, social and environmental protection information; and the quality of published reports on certain indicators relevant to appreciating a firm's growth (price-to-book ratio, sales growth and cost of capital). The results obtained indicate a low influence of sustainable reporting on a firm's growth indicators. Current and potential investors, lenders and business partners interpret sustainability reporting as insufficiently documented and as having a low capacity for integration within the decision-making process. However, significant dependency relationships were identified, and particularized on various connections without following a correlation pattern between a firm's growth directions and the indicators of sustainability reporting. The results remain robust even after the introduction of certain control variables, such as sustainability sensitive industry sectors, company size and age, or increase of investments. Our paper sets out to contribute to expanding the specialty literature by highlighting the involvement of sustainable reporting as a factor in optimizing firms' growth strategies and, at a methodological level, by using a quantile regression.

Keywords: sustainability reporting; firms' growth; business strategies; Romanian capital market; quantile regression

1. Introduction

The concept of "sustainable development" started being used at a large scale after being presented in the Brundland report, "Our Common Future" [1]. "Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future" [2]. Reporting information regarding sustainable development became a means by which major companies could show their concern for increasing the transparency of the activities they conduct and for promoting corporate responsibility [3,4]. As part of a social contract promoted by legitimacy theory [5–7], companies respond to society pressures using sustainable reporting as a tool for confirming the socially responsible behavior mandated by the external environment in which they conduct their activity [8]. In accordance with the voluntary disclosure theory, companies also perceive the instrumental role of presenting social responsibility information in increasing economic performances [9–12] and submit such data to improve their image and reduce the negative effect

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of their own activities. Concurrently, the voluntary presentation of financial information, as well as environmental protection and social responsibility information in single report has become the new trend in terms of corporate reporting [13]. The responsible behavior of companies is not equally appreciated in all economic areas. The effects of sustainable porting on company performances depend on both the manner in which they present the activities they undertook and on a plethora of factors that are specific of the society and business environment in which they operate.

Sustainable reporting is an extensively debated subject in the specialty literature, with studies focusing on two primary research directions. On the one hand, the analysis focuses on the determinant factors of sustainable reporting, such as corporate governance [14–17], profitability, ownership structure, company size [18,19], debt and liquidity [20] or even board gender [21,22]. On the other hand, research focuses on the effect of reporting sustainable actions on the indicators of economic results, namely company value [23–25], cost of capital [26–28] or operating performances [13,29,30].

This study analyzed the impact of sustainability reporting on firms' growth. The contribution of sustainable reporting to firms' growth was analyzed in terms of both the role of social and environmental protection actions that are published (the existence of sustainable reporting and the integrated reporting of information), as well as in terms of the means via which same are made disseminated (the quality of sustainable reporting). The resulting dimension, firm's growth, was disaggregated into three study directions, namely: the prospect for increased market value (measured via the price-to-book ratio (PBR)), operational performance (as reflected by the sales' growth) and cost of capital (estimated via the weighted average cost of capital (WACC)).

The results thus obtained reveal a low influence of sustainable reporting on the firms' growth indicators. In the Romanian context, social and environmental protection actions do not generate significant reactions on the financial (stock exchange or banking) or real (goods and services') market, the results being in line with those stated by Guidry and Patten [31]. Existing and prospective investors, lenders and business partners believe that sustainability reports are insufficiently documented and have a low capacity to become integrated in the decision-making process, these statements also being supported by Stacchezzini et al. [32] and Leszczynska [33]. However, significant dependency relationships were identified and particularized on various connections without following a correlation pattern between a firm's growth directions and the indicators of sustainability reporting. In this respect, involvement in sustainable actions and integrated reporting determine an increase in the cost of capital, similar to the findings of Clarkson et al. [10], and a decrease in the prospects of growth for firms' value, consistent with the results of Lourenço and Branco [34].

This paper debates the role of sustainable reporting in optimizing the strategies adopted for growing a firm, thus filling a gap in terms of estimating the factors that contribute to business development. This article is different in terms of the mode of measurement for sustainable reporting (via the proposed variables), being developed in an economic area where imparting data on sustainable activities is voluntary. Moreover, breaking down company growth into three indicators that reflect the primary means of generating performance for companies, namely investors, business partners and lenders, is proposed as a relatively original approach. Our paper also contributes to the expansion of specialty literature by using a quantile regression for the purpose of increasing the thoroughness of the analyses that were conducted.

The rest of the paper is organized into four sections, namely a synthetic literature review on sustainable reporting and the quality thereof, as well as substantiating the working hypotheses (Section 2); the presentation of data, variables and research methods that were used (Section 3); and the interpretation of the results (Section 4). Finally, Section 5 synthesizes the main conclusions, while also presenting the limitations and future research directions.

2. Literature Review and Developing the Hypotheses

Environmental protection and social actions made public via sustainable reporting reflect the entities' effort for sustainable development. This environmentally and socially responsible behavior

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can generate economic benefits for companies, substantiated in the form of increased and streamlined activities of such companies. Companies increasingly face growing pressures to publish social and environmental data for the sake of informing users. As such, the number of companies that voluntarily publish such information has grown substantially: in 2017, 93% of Fortune Global 250 companies published such reports compared to 35% in 1999, while 75% of National 100 companies did the same in 2017 compared to 12% in 1993 [35]. The systematic integration of economic information and social and environmental responsibility data is essential for a better adoption of decisions.

2.1. Sustainability Reporting and the Quality Thereof

Unlike financial reporting, sustainability reporting is voluntary in the majority of states [36]. For this reason, most companies presenting information about social and environmental protection actions use voluntary reporting systems, such as the guidelines in the Global Reporting Initiative (GRI), the GreenhouseGas (GHG) Protocol developed by the World Resource Institute [37,38] and, in recent years, the integrated reporting developed by the International Integrated Reporting Council. Although efforts were made toward standardizing the information regarding sustainable reporting (GRI and GHG), there are still differences in the content and quality of reports compiled [39]. While other forms of voluntary standards (ISO) managed to solve this variability in terms of implementation [40], this aspect has not been solved in the field of sustainability reporting.

The lack of compulsoriness and standardization in this field leads to inconsistencies in the companies' assessment and reporting of sustainability reporting [41,42]; this vulnerability is also generated by the fact that, unlike financial statements, no certification is required for these reports [43]. In fact, the voluntary publication of sustainability information can help soften the negative effects generated by complex financial statements [44]. Stock exchange listing is a driving factor for the increasing quality of sustainability reporting, as companies have to comply with such requirements formalized in listing agreements. Moreover, even the listing category carries a certain influence, and listed firms on a main category tend to report more information [13].

Given that the voluntary publishing of information regarding sustainable development is the most frequently encouraged, the literature shows that firms tend to report good news and avoid publishing bad news [45] to improve their image [19]. This behavior corresponds to the impression management theory, which determines that companies use strategies for improving the positive aspects of performance in terms of sustainability and omit negative aspects [46–48].

Companies with low environmental performances avoid publishing information owing to the high risk of litigation, which can negatively impact future benefit flows. Frequent legislative modifications in the field of environmental protection is yet another factor that can influence the manner in which performance in this field is estimated and reported [49,50]. In addition, a major part goes to the size and business sector of the company. Thus, firms operating in business sectors with environmental impacts tend to present general information that is difficult to check [51].

Improving environmental performances generates real economic benefits [11,30,52], but they also have a negative impact owing to future costs [53]. On the other hand, the quality of published reports expressed in terms of the level of detail regarding environmental protection actions provides access to more favorable financing conditions [54–57]. In fact, companies that publish high-quality environmental information show effective corporate governance and face fewer difficulties in accessing capital markets [26].

Social responsibility practices influence the growth and streamlining of companies, in terms of both operational performance (by increasing sales) and increased market value, as well as by reducing the risk of litigation resolution. The voluntary publishing of social responsibility activities can also lead to a decrease in the cost of capital of a firm [12,28,58]. On the one hand, social responsibility actions can be a marketing strategy for firms [59,60]; on the other hand, they can also be a good means for "washing away their sins", as firms have the chance to present their image in a favorable manner [61–64] and contribute via their involvement in the social progress to the economic growth

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of the space where they conduct their business [65]. Actions are validated by the legitimacy theory, which interprets socially responsible behavior as a means for companies to respond to requests issued by the society [5,66].

Although evident, the benefits of sustainable reporting cannot be accurately estimated and interpreted without a common measuring and reporting framework that—similar to financial reporting—can allow for a better substantiation of the users' decision.

2.2. Integrated Reporting in Romania

In Romania, reporting matters regarding environmental impacts were introduced via multinational companies in the early 2000s. These companies initially published information regarding actions undertaken for environmental protection purposes or for social cases; subsequently, they started to present more detailed financial and non-financial information function of the requests from their parent-company. Nationwide reports were thus published or centralized at a group level. In some cases, the reporting was disrupted by financial problems. Few companies nationwide have reported information on their sustainable activity without any disruptions [67].

Considering the underlying costs of presenting such information and the lack of regulations mandating the compulsory publishing thereof, in the case of Romania-based companies, such information continues to be presented in a rather inconsistent manner, either on the firms' websites, or in separate reports. In terms of the contents of the reports, the latter focus on sustainable growth policies, certifications under ISO 14001 and ISO 18001, holding a basic or integrated environmental permit, and presenting various social actions, respectively.

Studies conducted on the involvement of Romanian companies in social and environmental protection activities reveal a decrease in corporate social responsibility (CSR) actions [68]. Although the topic of sustainable growth peaks the interest of the economic medium, the transparency level of Romanian companies is still low [69]. The studies conducted by the specialty literature also reached the same conclusion: the majority of environmental information provided by firms in Romania is incomplete and irrelevant [70,71] and fails to identify a significant connection between financial and environmental performance [72,73], the tendency being to publish solely positive aspects that could constitute a competitive advantage or a means to improve the company's image [74].

The adoption of the 95/2014 Directive binds all companies with 500-plus employees to attach a non-financial statement to their financial reports, such statement also providing details about the impact generated on the environment, on clients and on employees. Many investors envision the reporting of non-financial data as leading to transparency, ensuring a clearer vision on a company's sustainability performances. This also helps companies identify their vulnerabilities, which they can remedy and thus reach their sustainable growth targets. Another advantage could be the creation of a competitive marketplace, the access to resources and relationships between users based on trust, on community information. Being compulsory, the regulation will boost firms to rethink their business by also taking into consideration the principles of sustainable development.

2.3. Substantiation of Hypotheses

The literature developed by studying sustainable reporting focuses on two primary directions, namely identification of determinant factor for social and environmental protection actions, and the role of such activities in a firm's development, respectively. Our paper focuses on analyzing the influence of sustainable reporting on a firm's growth indicators.

Publishing sustainability information can be seen as positive news and can therefore improve the firm's reputation (with positive effects of performance) and can help avoid a decrease in share price [13]. To this end, certain studies [29,30] identify a positive relationship between sustainability and financial performance of the firm (measured via return on invested capital, return on equity, return on assets and earnings per share or cash flow). The results show that, although a proactive environmental strategy can be associated with future economic performance, not all firms adopt such a strategy.

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However, other papers [13,64] identify that a firm's profitability has a statistically significant negative relationship with disclosing information regarding sustainable reporting. These results are justified by the fact that firms with high levels of profitability do not depend on foreign resources to attract capital, but can finance their activity using own resources, and thus they are more preoccupied with economic aspects than contributing to a better society and protecting the environment [13,64]. From yet another perspective, however, a high level of profitability can raise public suspicions, in which case the situation could be clarified by providing non-financial information [13].

Starting from the main objective of our research, i.e. determining the impact of sustainable reporting on firms' growth, we considered the following hypotheses:

Hypothesis 1 (H1). There is a significant association between sustainable reporting and operational performance, estimated via sales growth.

Conducting a sustainable activity allows companies to reduce their costs of capital by inducing investors to believe that the risk associated with their investment is lower [75]. To this end, Dhaliwal [12] provided evidence that the information published by firms with superior CSR performances generate a subsequent reduction in their costs of capital. A negative association between disclosing social aspects and own cost of capital was identified in countries with lower investor protection, in firms with high levels of financial opacity [27]. In addition, given that financial opacity increases own costs of capital, there is a possible substitution connection between financial and non-financial information [27]. From another point of view, improving responsible relations with employees, environmental policies and product strategies substantially contribute toward reducing companies' costs of capital [28,76]. Barth et al. [26] analyzed annual reports of listed companies from South Africa, where integrated reporting is mandatory, and they identified a positive association between this and the companies' liquidity and cash flows, but they did not identify any connection between sustainable reporting and cost of capital. Qiu et al. [52] showed that social performance is more significant for investors on the United Kingdom market. However, the study does not present clear evidence that the information regarding environmental or social activities are associated with future financial performances or with costs of equity.

Hypothesis 2 (H2). Sustainable reporting significantly influences costs of capital.

Voluntarily publishing information about the environment tends to influence investor perceptions in a favorable manner, reducing uncertainty and thus contributing to increasing financial value [11,77]. Environmental information is relevant for value. This would reduce future compliance costs and would positively influence companies' future financial perspectives and the value of firms [12,78]. Yu and Zhao [25] stated that there are two theories for the impact of sustainability on the value of a firm: the theory regarding the creation of value (by reducing risks owing to the integration of sustainable reporting into the business strategies) and the theory of value erosion (sustainable activities diminish investors' revenues). The relationship between the quality of voluntary environmental information on the one hand and the value of firms and costs of capital on the other hand was also analyzed by Plumlee et al. [58]. Results show a positive association between the quality of environmental information and the value of firms, and a mixed situation regarding cost of capital, with both positive and negative connections, function of the type and nature of such published information. Company characteristics—such as size, profitability and capital expenditure—associate positively with the quality of environmental information [26]. Cormier and Magnan [79] believed that reliable and relevant environmental information, as well as the entities' reputation, entail certain economic benefits for firms, including higher share prices. Considering that publishing sustainable information engenders costs, Qiu et al. [52] analyzed the connection between presenting non-financial (environmental and social) information, and the companies' profitability and market value, respectively. Results show

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that firms with greater economic resources publish more detailed environmental information, which provides them with net positive economic benefits.

Hypothesis 3 (H3). *There is a significant association between sustainable reporting and the prospect of growing the value of companies.*

A significant portion of studies in the literature focus on analyzing the connection between the disclosure of sustainable reporting information and company size [19,80,81]. Company size is a determinant factor of sustainable reporting, as large companies and companies with high mass media visibility are somewhat forced to report non-financial information that would lead to increased transparency [18]. Sustainability reporting is basically the firms' attempt to counterattack mass media exposure using their own stories [29]. Using a sample comprised of the 50 largest firms in the USA and Japan (100 in total), Ho and Taylor [81] determined that the reporting/disclosure ratio is higher in larger firms, as well as in firms with lower profitability and liquidity levels. The conclusions reached by Brammer and Pavelin [80] are consistent with the results of this study, namely that large firms tend to have a positive association with the voluntary decision to disclose environmental information, as well as with the quality thereof. This situation can be explained as large firms are much more visible and are subject to more significant shareholder pressure and control [19]. Large companies also enjoy less burdensome costs of disclosure compared to small firms, which makes them less likely to undertake efforts in this respect [82].

3. Materials and Methods

In testing the working hypotheses, this study assessed the effect of sustainable reporting on firms' growth via the impact generated on the behavior of the three primary financial and non-financial user categories, namely investors, funding entities and clients. To this end, publishing environmental protection and social actions is a quality indicator for the organizational culture of entities, which can help reap certain benefits substantiated in the form of increased and streamlined activities thereof.

3.1. Sample, Data and Variables

The analyzed population comprised Romanian companies listed on the main section of the Bucharest Stock Exchange (BSE), excluding companies whose scope of business is financial brokerage. The financial and non-financial data were collected manually from various reports published on the companies' and BSE's websites. Annual financial statements, annual management reports (presenting extensive financial and non-financial information about the company) and separate pieces of information presented on the companies' websites have been used to this end. Owing to the voluntary character of sustainable reporting, it was impossible to use specific reports. Only four reports of this kind were identified. We synthesized information that was specific to the 59 companies remaining in the sample, over the course of six financial years (2012–2017), thus producing 352 observations on each variable involved in the analysis. Extreme values of outliers were replaced, as per a methodology proposed by Hoaglin and Iglewicz [83], by the closest values in the distribution.

The variables substantiated based on the collected information are concentrated in Table 1, function of their role in the conducted analysis. The resulting dimension, i.e. the growth of a firm, was broken down into three study directions: the prospect for increased market value, operational performance and the level of cost of capital. Representative indicators were used for each of these directions.

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Variable	Abbreviation	Description
		Dependent variables
Price to book ratio	PBR	Provides the ratio between share price and its book value
Sales growth	SalesGr	$(sales_{i,t} - sales_{i,t-1})/sales_{i,t-1}$
Cost of capital	WACC	Weighted average cost function of the structure of financial resources
		Independent variables
Sustainable reporting	SustRep	Dummy variable, takes the value 1 if the entity publishes sustainable information and 0 if it does not
Integrated reporting	IntegRep	Dummy variable, takes the value 1 if the entity produces integrated reports and 0 if it does not
Quality of report	QualRep	The dummy variable takes the value 1 if the entity presents both descriptive and quantitative information, and the value 0 if it only presents descriptive (qualitative) information.
		Control variables
Firm size	Size	Log total assets
Investment growth	InvGr	$(tangible assets_{i,t} - tangible assets_{i,t-1})/tangible assets_{i,t-1}$
Work productivity	W	Log (sales/No. of employees)
Industry	SensInd	Dummy variable, takes the value 1 if the scope of activity is sensitive to sustainable activities and 0 if it is not
Age of the company	Age	Number of years of listing

Table 1. Description of variables used in the study.

The opportunities for increasing the value were measured via the price-to-book ratio [84], as the indicator shows the level of informational asymmetry between the company and investors [19], its reduction entailing the need for sustainable reporting [20]. An additional report to investors comprising non-financial information on sustainable actions could lead to an increase in the demand for listed shares, which then determines an increase in the market price thereof and improved financial performance. Operational performance was estimated via sales' growth, calculated as change in sales scaled by lagged sales [26], because this is a stable indicator and it is less affected by seasonality [85].

Cost of capital is influenced by the perception of the risk associated to financing a company [75]. Integrated reporting helps investors understand the risk the entity is exposed to and how the business model responds to it [26]; streamlining the activity helps diminish the cost of external financing [86]. Minimizing capital cost ensures the assessment of a high company value [49], ergo its determinant role in company growth.

Sustainable reporting was assessed via three quality indicators. As such, following the dummy variable coding procedures used by Kuzey and Uyar [20] and Frias-Aceituno et al. [84], we defined the Sustainable Reporting (SustRep) variable, under which involvement in any kind of sustainable reporting (including the publishing of certain information on the companies' own websites or singular mentions in annual reports) scored 1, while the lack of any information in this respect scored 0. The information identified most frequently comprised actions regarding: air emissions, the treatment of waste and wastewater, energy consumption, greenhouse gas certificates, occupational safety, equal opportunity, etc.

The Integrated Reporting (*IntegRep*) dummy variable was created by awarding a score of 1 for cases where companies produced integrated reporting for the conduct of a sustainable activity, as proved by obtaining both the ISO14001 and ISO18001 permits, which attest to the performance of concrete actions for environmental protection and for social purposes. The information in this

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regard was presented in the annual report that completes the set of financial statements. A lack of such reporting ascribed a 0 score to the variable.

The quality of sustainable reporting was determined via the Quality of Reporting (QualRep) variable, following the technique applied by Stacchezzini et al. [32], taking the value 1 if the company published descriptive information (in a narrative form) along with quantitative data, and the value 0 if reports only comprised descriptions (without figures). Narrative information includes merely simple notes, succinct reviews or even just lists of the sustainable actions that were conducted. The quantitative data include both numerical information about certain indicators such as water savings or amounts invested in social actions, and evolution graphs of the calculated indicators.

Control variables such as size, age and sustainability sensitive industry sectors were introduced in line with the relevant literature in the field regarding sustainable reporting [31,34,87,88]. Company size influences the capacity to enter commercial and financial markets [84], as well as the risk level as perceived by investors, with effect on cost of capital [89]. According to Bachoo et al. [89] and Shamil et al. [90], business sectors were grouped within a dichotomous variable function of their sensitivity to sustainable activities. To this end, the *SensInd* variable took the value 1 for sensitive sectors (e.g., energy, processing industry, and constructions) and 0 for non-sensitive sectors (e.g., services, commerce, and information technology). The age of the company was deemed a determinant factor in sustainable reporting, as old companies tend to improve their practices in terms of environmentally and socially responsible activities [88]. The investment growth (*InvGr*) and work productivity (*W*) variables were introduced in the study owing to their capacity to reflect the implementation of sustainable actions, namely adjusting technologies to environmental protection requirements and increasing the efficient use of personnel following activities of a social nature.

3.2. Data Analysis Methods

The study on the influence of sustainable reporting on firms' growth employed correlation analysis and multiple linear regression analysis with alternative independent variables. The general econometric model is illustrated in Equation (1).

$$Firm_Growth_{i,t} = \alpha_0 + \alpha_1 * Sustainability_{i,t} + \sum \alpha_j * Controls_{i,t} + \varepsilon_{i,t}$$
 (1)

where $Firm_Growth$ is broken down in three dependent variables, specific of the three directions for measuring growth, namely PBR (price-to-book ratio) for the prospect of increase value of firm i, at time t; SalesGr (sales growth) for change in the sales of firm i, at time t; and WACC (weighted average cost of capital) of firm i, at time t, the calculation of which used ROE (return on equity) for cost of equity and effective interest rate for cost of debts. The Sustainability independent variable shows the individual influence of the dummy variables proposed to reflect the sustainable reporting process of firm i, at time t, respectively, SustRep, IntegRep and QualRep. Controls integrate the conjugated action of control variables for the variance of investments (InvGr), work productivity (W), industry (SensInd), firm size (Size) and age (Age). α_0 , ..., α_i are the parameters associated with the variables in the model, which are to be estimated, while $\varepsilon_{i,t}$ is the error term synthesizing the influence of all the factors with impact on the firms' growth, but which are not included in the model.

The econometric model synthesized in Equation (2) was used to estimate the joint influence of sustainable reporting and industry sector sensitivity as per Bachoo et al. [89].

$$Firm_Growth_{i,t} = \alpha_0 + \alpha_1 * Sustainability_{i,t} + \alpha_2 * Sustainability_{i,t} * SensInd_{i,t} + \sum_{i,t} \alpha_i * Controls_less_{i,t} + \varepsilon_{i,t}$$
 (2)

where *Control_less* comprises all the mentioned control variables, except for *SensInd*, and the *Sustainability* * *SensInd* relationhip reflects the extent to which firms' growth is influenced when firms report sustainable activities and pertains to a sector that is sensitive to such actions (e.g., energy, constructions).

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Quantile regression was used to enhance the accuracy of the results, as it facilitates the analysis of independent factors on firms' growth, broken down into specific growth intervals. Initially proposed by Koenker and Bassett [91], the quantile regression model can be expressed according to the relations of [92]:

$$y_{i,t} = x'_{i,t} \beta_0 + \varepsilon_{i,t} \tag{3}$$

with

$$Quant_{\theta}(y_{i,t} \mid x_{i,t}) = x'_{i,t} \beta_0 \tag{4}$$

where y_{it} is the firms' growth, x_{it} is a vector of the independent variables, β expresses a vector of the parameters to be estimated, and ε is the error variable. $Quant_{\theta}(y_{i,t} \mid x_{i,t})$ shows the θ th quantile of y_{it} function of x_{it} .

To eliminate restrictions related to endogeneity, as per Sial et al. [93], we used one year lagged dimensions for firms' growth so that they may integrate the effects of sustainable reporting undertaken in the previous year.

4. Results and Discussion

The study results entail presenting the general conditions of the economic environment, in the form of a descriptive analysis of used variables and the relations between same, followed by conclusions reached in the process of testing the stated working hypotheses.

4.1. Descriptive Statistics

Table 2 shows the measurements describing the distribution of values associated with the main variables included in the study, useful elements in describing the economic context in which the analyzed phenomenon is manifesting. The endeavor is conducted globally, both throughout the entire sample and by breaking it down into two clusters, function of the use of sustainable reporting as a means of communicating with the external medium.

Elements	Total Sample N = 352				SustRep N = 206		No-SustRep N = 146			
	Mean	Std. dev.	Median	Mean	Std. dev.	Median	Mean	Std. dev.	Median	
SalesGr	0.012	0.179	0.019	0.023	0.173	0.029	-0.002	0.186	0.000	
PBR	0.591	0.582	0.520	0.605	0.586	0.557	0.572	0.579	0.456	
WACC	0.045	0.091	0.025	0.059	0.098	0.046	0.025	0.076	0.003	
InvGr	0.013	0.129	-0.008	0.001	-0.013	0.123	0.030	0.134	0.000	
Size	8.241	0.608	8.179	8.401	0.579	8.354	8.017	0.579	8.010	
W	5.365	0.442	5.328	5.408	0.407	5.339	5.304	0.482	5.264	
Age	15.94	3.815	17.00	15.78	4.173	17.00	16.18	3.241	17.00	

Table 2. Descriptive statistics of the analyzed variables.

Source: own processing.

We note a higher average dimension of operational performance in companies that report sustainable activities ($SalesGr_{SustRep} = 0.023$) compared to companies that do not conduct such actions and that even register a decrease in sales ($SalesGr_{No-SustRep} = -0.002$). This can show the positive impact of environmental protection actions and social actions on commercial relationships, as an effect of improving the company's image.

In addition, funding entities (whether they are shareholders or lenders) interpret the lack of sustainable reporting elements in an unfavorable light, by increasing the cost-related requirements corresponding to the financial resources made available to the firms ($WACC_{SustRep} = 0.059 > WACC_{No-SustRep} = 0.025$). From the perspective of the stock market, PBR values reflect the existence of a significant informational asymmetry ($PBR_{total_sample} = 0.591$) and the possibilities to increase the market value of the entities, the current value of listed shares being evidently underquoted compared

to their book value. Sustainable reporting is not a significant disjunctive factor within the two clusters that were formed, which indicates that social and environmental performance is not a determinant element in establishing the price of shares.

The values of control factors characterize an economic medium influenced to a lesser extent by the presence of sustainable reporting. As such, listed Romanian companies register a low rate of investment growth ($InvGr_{total_sample} = 0.013$), without integrating sustainable actions in this endeavor, the investment growth rate in companies that do not report sustainably being higher than the one registered in companies that report such interests ($InvGr_{SustRep} = 0.001 < InvGr_{No-SustRep} = 0.030$). Interest in social and environmental performance is primarily found in larger companies ($Size_{SustRep} = 8.401 > Size_{No-SustRep} = 8.017$), with higher work productivity ($W_{SustRep} = 5.408 > W_{No-SustRep} = 5.304$) and an age (in terms of stock exchange listing) that is lower ($Age_{SustRep} = 15.78 < Age_{No-SustRep} = 16.18$).

All variables present with a significant dispersion of values around the average, a situation that is typical of an emerging economy and stock market, where both the evolutions of financial indicators and the prices for shares are influenced by many factors, some of which have minor roles in mature market economies.

The correlation analysis conducted for the purpose of identifying the intensity of connections between the variables introduced in the study generated the coefficient values synthesized in Table 3. Thus, we note a significant correlation between *WACC* and the independent variables regarding sustainable reporting, as well as partial connections of the other dependent variables (*SalesGr* and *PBR*) with predictors of social and environmental protection activities, respectively. Moreover, no high intensity connections were identified between the independent variables introduced in econometric models, which eliminates the risk of occurrence of collinearity relations.

Table 3. Pearson correlation coefficients.

Variables	SalesGr	PBR	WACC	InvGr	Size	W	Age	SustRep	IntegRep	QualRep	SensInd
SalesGr	1	0.126 *	0.149 **	0.119 *	0.1 43 **	0.202 **	0.007	0.073	0.060	0.168 **	0.065
PBR		1	0.087	0.168 **	0.165 **	0.181 **	-0.036	0.028	-0.016	0.019	0.153 **
WACC			1	0.128 *	0.354 *	0.331 **	-0.116 *	0.186 **	0.252 **	0.217 **	0.180 **
InvGr				1	0.081	0.097	0.037	-0.111 *	-0.053	-0.028	0.043
Size					1	0.559 **	-0.216 **	0.311 **	0.463 **	0.164 **	-0.029
W						1	-0.154 **	0.116 *	0.251 **	0.069	-0.061
Age							1	-0.052	-0.034	0.109 *	0.165 **
SustRep								1	0.648 **	0.238 **	0.241 **
IntegRep									1	0.367 **	0.161 **
QualRep										1	0.136 *
SensInd											1

Notes: **. Correlation is significant at the 0.01 level (two-tailed). *. Correlation is significant at the 0.05 level (two-tailed). Source: Own processing.

4.2. Empirical Results

The results obtained upon testing the working hypotheses are presented in a comparative manner, by revealing the influences generated by each sustainability indicator on the three directions of study for firms' growth.

Table 4 synthesizes the influence exercised by SustRep on firms' growth. The presence of information regarding sustainable activities conducted by the company in the communication with the external medium has a low impact on SalesGr and PBR, the regression coefficients attached to the independent variable not being statistically significant (0.472 < Sig < 0.880). From a legitimacy theory viewpoint, the results point to the existence of sustainability actions that are either insufficient or not adapted to society's requirements, which do not secure the full acceptance thereof regarding the conducted activities, that would ultimately lead to obtaining superior economic benefits. The study generates results that are contrary to the evidence provided by Kuzey and Uyar [20] and Shamil et al. [90] regarding PBR and Radhouane et al. [23] regarding SalesGr, who identified significant relations between the aforementioned variables.

Variables -	Sale	esGr	PI	3R	WACC		
variables			Dependent	t Variables			
Constant	-0.497 (0.002)	-0.486 (0.003)	-0.959 (0.094)	-0.948 (0.101)	-0.438 (0.000)	-0.429 (0.000)	
SustRep _t	0.015 (0.472)	-0.001 (0.970)	-0.011 (0.880)	-0.028 (0.817)	0.011 (0.270)	-0.004 (0.812)	
SensInd _t	0.022 (0.300)	0.009 (0.765)	0.214 (0.004)	0.201 (0.055)	0.037 (0.000)	0.026 (0.063)	
SustRep _t * SensInd _t		0.025 (0.534)		0.147 (0.860)		0.023 (0.236)	
InvGr _t	0.139 (0.062)	0.138 (0.063)	0.766 (0.005)	0.767 (0.005)	0.066 (0.060)	0.065 (0.062)	
W_t	0.072 (0.005)	0.071 (0.006)	0.208 (0.026)	0.208 (0.027)	0.042 (0.001)	0.041 (0.001)	
Sizet	0.009 (0.641)	0.010 (0.623)	0.057 (0.430)	0.057 (0.429)	0.031 (0.001	0.032 (0.001)	
Age_t	0.001 (0.583)	0.001 (0.632)	-0.010 (0.295)	-0.010 (0.290)	-0.002 (0.147)	-0.002 (0.117)	
R square	0.059	0.060	0.095	0.095	0205	0.209	
Sig Model	0.002	0.003	0.000	0.000	0.000	0.000	

Table 4. Influence of sustainable reporting on firms' growth.

Note: The values of significance coefficients are presented between parentheses, with the study considering a 5% risk. Testing was performed for each dependency relation both with and without the variable expressing the interaction between sustainability indicators and industry sector sensitivity. Source: Own processing.

By accepting a higher risk level, upwards of 5% (27%, respectively), we can reservedly state that SustRep influences WACC (in the first model associated with this variable). The relationship between the two variables can reflect the fact that involvement in social and environmental protection actions raise uncertainties among funding entities with regard to the effects of such actions on the companies' performance, uncertainties that materialize in the form of additional requirements on repaying resources that were made available. Our results are consistent with those of Clarkson et al. [10] in regard to the impact of environmental reporting, and contrary to the conclusions reached by Dhaliwal et al. [12] and El Ghoul et al. [28] regarding the impact of CSR.

The conjugated action of sustainable reporting in the case of companies in industry sectors that are sensitive to social and environmental actions ($SustRep_t * SensInd_t$) reflects similar connections, supporting the stated conclusions.

The *InvGr* and *W* control variables exercise a positive and statistically significant influence at a level comprised between 1% and 10%. It can thus be deemed an indirect influence on the firms' growth by certain activities that are not reported as sustainable. This is the case for increasing investments that generate savings in the consumption of resources or that are environmentally friendly, and the increase in work productivity as a result of motivating and upskilling the staff via training activities, respectively.

The *Age* and *Size* predictors only generate significant influences on *WACC*, as opposed to Radhouane et al. [23], who identified a negative yet significant influence between *Size* and *PBR* as well as *SalesGr*. Large companies determine additional cost-related requirements, while the increasing period during which the entities are listed facilitates reductions in the cost of attracted capital.

The role of integrated reporting in firms' growth is reflected via the results presented in Table 5.

Variables	Sale	esGr	PI	3R	WACC		
variables			Dependent	t Variables			
Constant	-0.535 (0.002)	-0.528 (0.002)	-1.377 (0.023)	-1.565 (0.004)	-0.404 (0.000)	-0.416 (0.000)	
$IntegRep_t$	-0.005 (0.828)	-0.015 (0.693)	-0.152 (0.059)	-0.108 (0.373)	0.017 (0.114)	0.033 (0.063)	
SensInd _t	0.026 (0.196)	0.022 (0.364)	0.237 (0.001)	0.255 (0.001)	0.037 (0.000)	0.044 (0.000)	
IntegRep _t * SensInd _t		0.015 (0.741)		-0.089 (0.530)		-0.024 (0.248)	
InvGr _t	0.128 (0.082)	0.126 (0.089)	0.712 (0.009)	0.592 (0.012)	0.066 (0.057)	0.069 (0.046)	
W_t	0.071 (0.006)	0.072 (0.006)	0.205 (0.027)	0.163 (0.048)	0.041 (0.001)	0.039 (0.001)	
Sizet	0.015 (0.455)	0.015 (0.486)	0.112 (0.113)	0.148 (0.027)	0.028 (0.004)	0.029 (0.003)	
Age_t	0.001 (0.587)	0.041 (0.643)	-0.009 (0.330)	-0.003 (0.743)	-0.002 (0.120)	-0.002 (0.197)	
R square	0.058	0.058	0.106	0.102	0.208	0.211	
Sig Model	0.002	0.004	0.000	0.000	0.000	0.000	

Table 5. Impact of integrated reporting on growth indicators.

Note: The values of significance coefficients are presented between parentheses, with the study considering a 5% risk. Testing was performed for each dependency relation both with and without the variable expressing the interaction between sustainability indicators and industry sector sensitivity. Source: Own processing.

Publishing information about sustainable activity also has a low influence on firms' growth from this perspective as well. The connection between IntegRep and SalesGr is not statistically significant, this result being similar to that obtained by Kuzey and Uyar [20], in regards to the relation between sustainable reporting and operational performance. The influence of integrated reporting on the prospect of increasing the company's market value (PBR) is negative ($\alpha = -0.152$), similar to the one identified by Lourenço and Branco [34] in the case of Brazilian firms. In the context of the Bucharest Stock Exchange (BSE), investors interpret social and environmental protection actions as a limitation on profitability, thus proving a behavior that is focused on results by any means, which is contrary to the new vision for sustainable growth. This conclusion can also be backed by the impact of integrated reporting on the increase of cost of capital (WACC). Funding entities interpret sustainable activities

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as generators of uncertainties in terms of the capacity to repay the capital following the diminishing operational performance of companies. Our results are contrary to those obtained by Shad et al. [94], who identified a decrease in the informational asymmetry via sustainable reporting substantiated in a reduction of costs of capital.

The statistical significance and direction of action for the control variables identified in the connection between *SustRep* and firms' growth also remains consistent in the relation of causality between firms' growth and integrated reporting.

The quality of reporting expressed in the manner in which sustainability information is presented—only descriptively or mixed (including quantitative data)—impacts growth indicators by generating the effects synthesized in Table 6. The quality of report (*QualRep*) significantly influences sales' growth (*SalesGr*), as entities that also present quantitative information (in addition to narrative information) information register an increase in operational performance, such connection having also been identified by Iyer and Lulseged [95]. However, there is no disjunctive effect if the scope of activity (*SensInd*) is also introduced in the analysis, which can highlight a low resonance and shallow interpretation of social and environmental actions in the general economic medium, this case being contrary to the results obtained by Stacchezzini et al. [32], who note an increasing interest in sustainable reporting among companies operating in sectors that are sensitive to environmental protection actions. Investors on the Romanian stock market do not react to this type of information, *QualRep* not being statistically significant in relation to *PBR*, as opposed to the results obtained by Bachoo et al. [89], who note a direct conditioning between the quality of reporting and the growth prospects of the entity.

Wastalalaa	Sale	esGr	PF	BR	WA	WACC		
Variables			Dependent	t Variables	0.056 (0.000) 0.056 (0.001) 0.036 (0.000) 0.066 (0.054) 0.041 (0.001) 0.029 (0.001) -0.002 (0.057) 0.226			
0 1 1	-0.438	-0.438	-1.038	-1.040	-0.410	-0.410		
Constant	(0.005)	(0.005)	(0.041)	(0.040)	(0.000)	(0.000)		
O., -1D	0.102	0.112	-0.041	0.293	0.056	0.059		
QualRep _t	(0.006)	(0.279)	(0.730)	(0.382)	(0.001)	(0.229)		
C 1	0.019	0.019	0.202	0.212	0.036	0.036		
$SensInd_t$	(0.347)	(0.345)	(0.002)	(0.001)	(0.000)	(0.000)		
O 1D * C 1		-0.012		-0.382		-0.003		
QualRep _t * SensInd _t		(0.914)		(0.286)		(0.949)		
I C	0.141	0.142	0.641	0.664	0.066	0.066		
$InvGr_t$	(0.052)	(0.052)	(0.007)	(0.005)	(0.054)	(0.055)		
TAT	0.072	0.072	0.167	0.165	0.041	0.041		
W_t	(0.005)	(0.005)	(0.042)	(0.045)	(0.001)	(0.001)		
C.t.	0.004	0.004	0.081	0.079	0.029	0.029		
$Size_t$	(0.814)	(0.817)	(0.188)	(0.198)	(0.001)	(0.001)		
4	0.000	0.000	-0.004	-0.003	-0.002	-0.002		
Age_t	(0.868)	(0.857)	(0.594)	(0.714)	(0.057)	(0.061)		
R square	0.078	0.078	0.087	0.090	0.226	0.226		

Table 6. Influence of sustainable reporting quality on firms' growth.

Note: The values of significance coefficients are presented between parentheses, with the study considering a 5% risk. Testing was performed for each dependency relation both with and without the variable expressing the interaction between sustainability indicators and industry sector sensitivity. Source: Own processing.

0.000

0.000

0.000

0.000

0.000

0.000

Sig Model

From the perspective of WACC, entities that present sustainability information in both quantitatively and descriptively have a higher cost of capital, which confirms previous results. As per these results, sustainable actions are interpreted as performance diminishing elements that generate uncertainties regarding the loan repayment capacity, all of these materialized in the form of additional

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cost-related requirements for resources being made available. The results are contrary to those identified by Barth et al. [26], who noted no connection between the quality of reporting and the cost of capital, and by Bachoo et al. [89], who identified a negative connection in this respect. In this case also, the relations between the control variables and growth indicators remain consistent, in terms of both the direction of the influence and the statistical significance.

In all relations proposed for estimating the influences generated by sustainable reporting on firms' growth, introducing the conjugated effect of the sustainability indicator and the industry sector sensitivity did not generate a significant influence. This shows that in a Romanian context, reporting sustainable actions is not perceived as a responsibility by companies whose very own activity affects the natural and social environments.

From the perspective of econometric models, they adjust the real data in all cases, being statistically significant ($Sig_{model} < 0.05$), but the explanatory capacity varies (0.058 > R² < 0.226).

The models with the highest explanatory capacity and statistical significance express the connection between sustainable reporting and *WACC*. Moreover, most of the significant relations between sustainability indicators and company growth are registered in the case of the relation with the WACC dependent variable. For this reason, quantile regression was used to go more in-depth with this deterministic analysis, as presented in Table 7.

Breaking down the analysis into WACC size intervals indicates that sustainable activity has a negative influence on the cost of capital, but only in the case of entities with relatively low WACC compared to the average of the sample (those in the Q_1 and Q_2 quartiles). In the case of entities with the highest WACC, namely those in the Q_3 quartile, the relation to sustainability indicators is not statistically significant. The significant relation within the lower quartiles is supported by both the level of significance of the regression coefficients attached to sustainability variables (Sig < 0.05), via the one on the level of econometric models, and by the extent to which the independent variables explain the variance of growth indicators (R^2 models of Q_1 and Q_2 are superior to R^2 of Q_3). Thus, we identified the limited extent to which sustainable reporting contributes to increasing WACC.

Table 7. Quantile regression—effect of sustainable reporting on WACC.

Variables	WACC											
variables	T	Total Sample			Q1			Q2			Q3	
Constant	-0.438	-0.404	-0.379	-0.450 (0.009)	-0.305 (0.082)	-0.182 (0.218)	-0.016 (0.186)	-0.028 (0.032)	-0.244	-0.037 (0.394)	-0.028 (0.517)	-0.149 (0.027)
SustRep _t	0.011 (0.27)			-0.048 (0.022)			-0.001 (0.013)			0.002 (0.701)		
$IntegRep_t$		0.017 (0.114)			-0.020 (0.007)			-0.004 (0.031)			0.003 (0.461)	
QualRept			-0.040 (0.013)			0.053 (0.017)			0.032 (0.062)			0.006 (0.826)
SensInd _t	0.037 0	0.037 0	0.034 (0.001)	0.072 0	0.069 (0.001)	0.057 (0.002)	0.002 (0.713)	0.001 (0.64)	0.028 0	0.009 (0.075)	0.009 (0.074)	0.029 (0.001)
InvGr _t	0.066 (0.06)	0.066 (0.057)	0.06 (0.095)	0.073 (0.292)	0.09 (0.02)	0.098 (0.177)	-0.007 (0.253)	-0.008 (0.175)	0.078 (0.005)	-0.006 (0.709)	-0.006 (0.732)	0.062 (0.061)
W_t	0.042 (0.001)	0.041 (0.001)	0.041 (0.003)	0.001 (0.967)	0.002 (0.98)	0.005 (0.861)	-0.005 (0.013)	-0.005 (0.009)	0.016 (0.082)	0.006 (0.338)	0.005 (0.361)	0.001 (0.918)
Sizet	0.031 (0.001	0.028 (0.004)	0.03 (0.003)	0.045 (0.059)	0.03 (0.22)	0.016 (0.479)	0.005 (0.001)	0.007	0.022 (0.004)	0.008 (0.106)	0.007 (0.162)	0.019 (0.031)
Age	-0.002 (0.147)	-0.002 (0.12)	-0.002 (0.155)	-0.001 (0.796)	-0.004 (0.29)	-0.006 (0.116	0.001 (0.349)	0.001 (0.312)	-0.002 (0.037)	0.001 (0.606)	0.001 (0.599)	-0.003 (0.007)
R square	0.205	0.208	0.221	0.484	0.42	0.433	0.108	0.141	0.183	0.097	0.101	0.162
Sig Model	0	0	0	0	0.001	0.001	0.027	0.004	0	0.192	0.196	0.062

Note: The values of significance coefficients are presented between parentheses, with the study considering a 5% risk. Source: Own processing.

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5. Conclusions

The fundamental objective pursued in the activity of any company is continued growth for the purpose of achieving results that are superior to the investments made. The efficiency of the activity depends on the optimization of internal operations, but particularly on the reaction of the external medium. The manner in which a company conveys activity-specific information to all stakeholders is an element that individualizes it, with implications for its subsequent development. In this context, sustainability reporting is an instrument by which companies complete the classic set of financial data with information on the organizational involvement in protecting the environment and in social actions. This reflects the company's commitment to adopting a responsible behavior, with favorable results both for its own development and for the socioeconomic medium it is part of.

The integration of sustainability policies in the operational strategies of companies in Romania is a challenge, but one that can generate economic benefits for such companies by means of boosting and streamlining their activities.

This study analyzed the impact of sustainability reporting on company growth. The testing of our working hypotheses revealed a low contribution of publishing sustainable activities on the growth indicators of firms. This shows that social and environmental protection actions do not generate significant reactions on the financial (stock exchange or banking) or real (goods and services') market, in line with the results stated by Guidry and Patten [31]. From the perspective of both the legitimacy theory and the voluntary disclosure theory, the results obtained reflect the existence of sustainability actions that are either insufficient or not adapted to society's requirements, and which do not secure the expected economic benefits.

Our findings are in line with the statements in Stacchezzini [32] and Leszczynska [33], which represent that current and potential investors, lenders and business partners alike interpret sustainability reporting as insufficiently documented and as having a low capacity for integration within the decision-making process.

However, qualitative indicators that reflect both the type of sustainable activities (*SustRep* and *IntegRep*), and the quality of published reports (*QualRep*) form significant dependence relations particularized with various specific measurements specific of the three dimensions of firms' growth (*PBR*, *WACC* and *SalesGr*), thus confirming the volatility of the effect sustainable reporting has in the Romanian economic medium. We thus note the positive influence exercised on the cost of capital by both *SustRep* and *IntegRep*, which reflects increased requirements for repaying the resources made available by funding entities (shareholders or lenders), as a result of the costs attached to social and environmental protection actions, this correlation also being confirmed by Clarkson et al. [10].

We also identified a significant correlation, yet in the opposite direction, between integrated reporting and the prospect of company growth (PBR), which is ascribed to the interpretation of sustainable activities by shareholders as a limitation on profitability, as confirmed by Lourenço and Branco [34].

The control variables introduced in the study confirm the significant dependency relations, particularized on various connections (without following a correlation pattern between a firm's growth directions and the indicators of sustainability reporting), which help explain the dependent variable only if sustainable reporting has a significant influence. Industry sector sensitivity did not generate a significant influence, which confirms the low relevance of sustainable reporting.

Going more in-depth with the analysis using quantile regression revealed the limited contribution of sustainable reporting to increasing the cost of capital, only in the case of entities with relatively low WACC (those in Q_1 and Q_2).

The limitations of the study reside in focusing the analyses exclusively on companies listed on the main section of the Bucharest Stock Exchange (BSE) and in only using qualitative variables in regard to measuring sustainable reporting. Future research directions include eliminating these restrictions by introducing quantitative variables associated with sustainable reporting and extending the scope of research to include emerging European countries.

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