Non-financial information and company market value

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Abstract

Directive 2014/95/EU and the recent importance of the social and environmental sustainability topic have increased the interest of scholars, practitioners, investors, and other stakeholders in nonfinancial information aspects. This article examines the impact that the level of disclosure of nonfinancial information, as dictated by the European Union (EU) directive, has on market value. It measures the effect of some variables of nonfinancial information (proxied by the adoption of the Global Reporting Initiative [GRI] "core" or "comprehensive" option or the GRI "referenced-claim" option, the number of pages of the nonfinancial statement, the presentation of the statement separate from or aggregated with the annual report, and the use of the same or a different auditor for the statement and annual report) on the level of market value measured by market-based performance (Tobin's Q). The analysis was tested on Italian listed companies that presented nonfinancial statements during the 2017-2019 period. The research, conducted on the 2019 nonfinancial statements, shows that all investigated companies apply GRI standards. The empirical results furthermore show that the examined variables are not related to market performance and are not significant. These results lead to potentially contradictory findings. Whereas the adoption of generally recognized Corporate Social Responsibility (CSR) standards – being voluntarily adopted by all the investigated companies – is deemed crucial by stakeholders, the details of CSR information, by contrast, do not seem to have an impact on market value.

Keywords: Mandatory disclosure, GRI report, Non-financial information, Market value, ESG score.

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1. Introduction

Currently, companies are under a great deal of pressure from various stakeholders to take on social and environmental responsibility, and consequently, they must make a greater effort to enhance their nonfinancial reporting rather than their financial reporting (Nekhili *et al*., 2017; Grougiou *et al*., 2016; Perks *et al*., 2013). In doing so, they must disclose nonfinancial information to diverse stakeholders through different channels to adequately illustrate their environmental and social performance and, generally speaking, their sustainability attitude (Gray *et al*., 2006). The annual report represents not only a financial reporting document, but it also must include specific nonfinancial aspects.

Scholars have been debating in recent years about the contribution that sustainability attitudes and reporting can provide to financial performance.

The findings of the emergent academic research on the relationship between nonfinancial information, specifically sustainability issues, and financial performance (Alexander, Buchholz, 1978; Zambon *et al*., 2019) have been contradictory. In fact, some scholars have identified a positive relationship (Waddock, Graves, 1997; Al-Tuwaijri *et al*., 2004; Burnett, Hansen, 2008; Erhemjamts *et al*., 2013; Rodgers *et al*., 2013; Aureli *et al*. 2020), while others have found a negative relationship (Baird *et al*., 2012; Peng, Yang, 2014), and others have found no relationship at all (Alexander, Buchholz, 1978; Aupperle *et al*., 1985; Soana, 2011; Sun *et al*., 2010; McWilliams, Siegel, 2000). Furthermore, some scholars also have found a U-shaped/inverted relationship (Barnett, Salomon, 2012; Bowman, Haire, 1975).

The aim of this study is to analyse the relationship between nonfinancial information and market value (MV) in Italian listed companies that are required to prepare and disclose an NFS.

The decision to focus upon the Italian case essentially regards two different aspects. The first aspect concerns the fact that it does not seem feasible to propose an international comparison, given that the requirements concerning sustainability information can still vary from country to country, and this differentiation could affect the interpretation of the disclosed information (La Torre *et al*., 2018). The second aspect that led us to choose Italian listed companies as a reliable sample is the significant development of local legislation concerning nonfinancial information and the decision to opt for mandatory assurance for all NFSs, which should guarantee reliable information.

With reference to this last aspect, it is important to premise that on December 30th, 2016, the Italian government approved Legislative Decree no.

254/2016, implementing Directive 2014/95/EU on the disclosure of nonfinancial and diversity information by large companies. The aim was to provide investors and all various stakeholders with a more comprehensive portrait of a company's performance. The Decree entered into force starting with fiscal year 2017, when large companies had to prepare a nonfinancial statement (NFS) containing information on specific social, employment, and environmental matters considered material according to the nature and operations of the specific business activity. The contents of such an NFS are mainly based on CSR issues. According to Gray et al. (1996, p. 3), CSR reporting can be defined as the "process of communicating the social and environmental effects of organizations' economic actions to particular interest groups within society and to society at large".

This research falls in a period when academics and practitioners are debating about the need to find generally accepted nonfinancial reporting standards (IFAC, 2020; IFRS Foundation, 2020; World Economic Forum, 2020), pursuing the objective of creating more comparable information with the view of satisfying investors' information requirements. At the same time, the European Union is organizing a process based on EFRAG's technical capacity, which should lead to the enactment of generally accepted standards in its regional context (EFRAG, 2020).

The analysis, oriented to empirically comprehend the operators' behaviour (Dumay, 2012), was conducted on the entire applicable population of Italian companies listed on Borsa Italiana preparing NFSs from 2017, when they were required to present the annual NFS for the first time, to 2019. This decision is based on the fact that the population is composed of companies with a high experience of CSR, whose nonfinancial disclosure is reliable and consolidated.

Beyond its empirical value, our study makes some relevant contributions to the literature. First, we seek to provide insight into how nonfinancial information can have an impact on MV by providing new evidence on each of our selected explanatory variables. Second, given the importance of sustainability reporting in market valuations (Nekhili *et al.*, 2017), this research considers some new nonfinancial-based variables grounded on content analysis to proxy the information contents of NFS. Third, a contribution concerns the country analysed; we decided to focus our data analysis on Italian listed companies pertaining to all sectors after the aforementioned Decree no. 254/2016. This has never been investigated in previous research, taking into consideration the three different available options for GRI adoption.

Our study is structured as follows. First, we introduce the institutional context (Section 2); then, we provide the literature review and the paper's

theoretical background, which covers the relevant prior studies on nonfinancial disclosure and firm value and performance. We also present our hypotheses to be tested (Section 3). In Section 4, we delineate the research method, which includes the sample, the model specification and the variable definitions. Section 5 illustrates and discusses the empirical findings that result from applying the statistical model. In Section 6, we conclude by developing considerations and summarizing our contributions to the literature while suggesting some future research directions on this emergent topic.

2. Institutional Context

In the last few decades, the European Union has developed a policy in support of the CSR behaviours of enterprises. This orientation has been substantiated in the publication of several acts and communications, which, on the one hand, aspire to stimulate virtuous actions on the part of enterprises and, on the other hand, innovate corporate social reporting by introducing disclosure requirements.

At the beginning of the 2000s, the European Union explored the sustainability attitude in the context of European undertakings, publishing a Green Book that introduced the concept of CSR, defined as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (EC, 2001).

The European policy orientation in support of CSR acquired a "legislative" significance in subsequent years. In 2006, Directive 46/2006/EC provided that companies, where relevant, "may also provide an analysis of environmental and social aspects necessary for an understanding of the company's development, performance and position". Moreover, Directive 51/2003/EC stated that companies are to include in the annual report an analysis, where appropriate, of nonfinancial key performance indicators that can be relevant to the particular business, including information relating to environmental and employee matters (Art. 1, Point 14, Letter a).

The European Union decided, then, to enrich the sustainability disclosure of large entities that are public interest companies by requesting further nonfinancial information as per the Directive 95/2014/EU (nonfinancial reporting directive). This legislative act also aims to identify a set of information that can contribute to creating, at least at a high level, a sort of comparability in nonfinancial disclosure within the European economic area (La Torre *et*

al., 2018). This approach seeks to be reinforced by the definition of generally accepted standards (EC, 2019 and 2020a).

This disclosure must be provided through a "nonfinancial statement" that can be published separately or included in the annual accounts' management report.

The aforementioned directive is applicable by companies exceeding an average number of 500 employees during the financial year.

The Italian legislation implemented Directive 46/2006/EC with Legislative Decree no. 32 of 2nd February 2007, whose content is substantially in line with the original approach set by the EC (Caputo *et al*., 2020). As mentioned above, Italy has implemented the Non-Financial Reporting Directive through Legislative Decree no. 254 of 30th December 2016, which requires public interest entities that have the following:

- an average number of 500 employees during the financial year; and
- a net turnover over 40 million euros or total assets exceeding 20 million euros

to apply the implemented European Union requirements (CSR Europe, 2017).

The Italian regulator has "extended" the possibility of adopting the nonfinancial reporting rules to the entities that do not have to mandatorily apply them. The entities that opt to apply Decree no. 254/2016 can declare their voluntary compliance with the requirements, earning themselves a "reputational advantage".

In agreement with the European text, the Italian regulator requires that the statutory auditor or an independent external auditor must express an opinion on whether the provided information is consistent with the applicable requirements of the Italian decree and if he has identified material misstatements on the basis of the knowledge on the enterprise achieved in the course of its engagement, giving in this case an indication of the nature of such misstatements.

The required disclosure is strictly consistent with the European provisions and provides information able to illustrate the companies' approach concerning environmental, social and employee issues, respect for human rights, anti-corruption and bribery matters. The related information includes a disclosure on the business model adopted, the applied policies and their outcome, the related risks, and the nonfinancial key performance indicators.

The influence of the International Framework published by the International Integrated Reporting Council (IIRC) on this approach and the associated integrated thinking approach is quite clear (Eccles, Krzus, 2010; Churet, Eccles, 2014; NIBR, 2018).

3. Literature review and hypothesis development

3.1. Prior studies on CSR and market value

The European Commission has defined (2011) corporate social responsibility as "the responsibility of enterprises for their impact on society".

The literature has focused its attention on the potential relation between social performance and financial performance. Specifically, the main reason why this research has led to different results can be attributed to the operationalization and measurement of CSR and financial performance elements (Galant, Cadez, 2017). To date, it appears to be clear that financial markets do not express an opinion on an "entity's health" basing their judgement solely on traditional financial statements (Moscariello, Pizzo, 2019). The first element is simply measured by profitability ratios gathered from annual financial statements (if they are accounting-based) or from market sources for listed companies (if they are market-based).

Regarding the measurement of CSR, there can be some problematic challenges related to three factors:

- The lack of consensus for the operationalization of the CSR concept (Dahlsrud, 2008).
- The difficulties in measurement, since there is little information on non-financial reporting (Tschopp, Natanski, 2014).
- The disclosure of nonfinancial information is not always mandatory (Galant, Cadez, 2017) and structured.

According to Lee and Shin (2010), CSR activities are interpreted as social issues due to institutional pressures from the external environment and direct returns based on higher reputations.

The benefits can be resumed in several elements (Barnett, Salomon, 2006): attracting resources more easily, achieving good employee quality, marketing products/services more easily, creating unforeseen/unexpected opportunities and, finally, representing a source of competitive advantage.

In addition, Weber (2008) shows that CSR for companies represents a potential benefit measured by the increase in company reputation, employee motivation, retention and recruitment, cost savings, increased sales revenues and a decrease of risk associated with CSR factors.

Epstein and Rejc-Buhovac (2014) argue that CSR represents a necessary requisite to safeguard the bottom line. Thus, managers must consider not just shareholders but all individuals and groups with an interest in the company.

In this context, CSR will enhance stakeholders' satisfaction and, consequently, lead to better market value and financial performance (Aver, Cadez, 2009).

However, Margolis *et al*. (2007) and Orlitzky *et al*. (2003) conclude that, among other things, a positive relationship is more common. According to slack resources theory (SRT), companies with better financial conditions are more willing to allocate resources to develop corporate social performance and reach high standards on CSR (Waddock, Graves, 1997; Chen *et al*., 2015).

As far as standards are concerned, a body of literature found that there is no significant relationship between GRI reporting and financial performance (Mukherjee, Nuñez., 2019).

In relation to the specific case of Italian companies, some scholars have found a negative correlation between the publication of a social report and the company's stock price (Cardamone *et al*. 2012), others have found that a significant relationship exists only in a period of crisis (Fornaciari, Pesci, 2018), and others have found that the nonfinancial information before and after the implementation of the European directive is not value-relevant for financial markets (Cordazzo *et al*. 2020).

3.2. The Stakeholder Theory

Stakeholder theory (ST) may offer a solid framework for interpreting the positive relationship between nonfinancial information disclosure and financial performance. This theory focuses on the perspective that the company is a set of interdependent relationships among different members, which include not only shareholders but all different categories of stakeholders (Nekhili *et al*., 2017). ST is founded on the ability to produce sustainable wealth through relations with various stakeholders, instead of society in general (Mitchell *et al*., 1997; Freeman, 2010; Jones, 1995; Donaldson, Preston, 1995; Post *et al*., 2002). The mandatory disclosure of nonfinancial information, especially regarding sustainability, can represent an element that meets the demands of various stakeholders.

Stakeholder support will facilitate companies in achieving performance and guaranteeing their survival (Gray *et al*., 1996).

The company's only responsibility consists of increasing its value for its shareholders (Friedman, 1970). To ensure this, ST suggests that the more successful companies will be the ones able to manage the relationship be-

tween managers and owners better. Clarkson (1995) underlines that the dissatisfaction of stakeholder groups also may have a negative impact on performance and therefore damage the company's future.

According to Orlitzky *et al*. (2003), the satisfaction of various stakeholder groups represents a relevant driver for improving financial performance. Following Chen et al. (2015), ST suggests a positive relationship between CSR disclosure and market value.

Companies can be considered an interdependent part of the same organization with opposite interests (Deegan, 2002), and ST has the objective of aligning the opposite interests of various stakeholders.

3.3. Hypotheses development

The mandatory disclosure of nonfinancial information may have different impacts on MV for companies. At first, it can lead to both costs and benefits from the investors' perspective. Following Easley and O'Hara (2004), benefits can be measured in three elements: enhancing informational content, increasing the effectiveness of assessment and improving operational efficiency (better quality of products, better employee recruitment, etc.).

We identified different measures of sustainability disclosure calculated through content analysis. A frequent use of content analysis is counting words or sentences included in reports (Aras *et al*., 2010; Abbott, Monsen, 1979; Galant, Cadez, 2017), specifically on a sustainability factor worthy of being analysed (e.g., environment), and assigning binary variables ("0" and "1") if the selected issue is present.

We decided to introduce two variables based on the counting process of content analysis: number of pages and number of times the word "environment" is included in the NFS. This is supposed to be highly correlated with MV. The decision to adopt the number of pages of NFSs as a variable correlated with MV arises from the consideration that the higher the number of pages is, the higher the level of disclosure and the level of accurateness perceived by stakeholders (Deegan, Gordon, 1996; Carungu *et al*., 2020). The decision to use the number of occurrences of the term "environment" in NFSs as related to the companies' MV is oriented to capture the correlation that exists between the companies' attention to environmental issues and companies' MV. The environment is a critical issue addressed by public companies due to the frequent calls for action from political institutions and civil society, as demonstrated also by the NFRD's requirements.

Then, we also introduced three dummy variables that are supposedly positively related to performance: the first one posits that a higher level of details in the GRI report implies a higher positive impact on the MV (Karagiorgios, 2010; Chen *et al*., 2015, Buallay, 2019); due to this, we distinguished among NFSs prepared in accordance with the GRI "core" or "comprehensive" option and those with the GRI "referenced-claim" option. The diverse approach to GRI disclosure is assumed to have an impact on MV, as it should identify a higher "quality" of nonfinancial information (Sampong *et al*., 2018). We utilized two further dummy variables that could be positively related to MV: the preparation and presentation of a separate NFS (instead of an NFS being included in the management report) and the presence of the same auditor for both the annual report (AR) and the NFS. In the case of the presentation of a separate NFS, the hypothesis supposes a more focused, developed and specific attention on nonfinancial information, which is not a simple "deviation" or "derivation" from financial information. The presence of a "specific" auditor for the NFS could imply, due to the mandatory separate assurance on the NFSs in Italy, a major and dedicated focus on nonfinancial information. These two last dummy variables do not appear to be addressed by the literature yet.

Following the previous literature, we opted to analyse if the abovementioned variables can have a relation with the market value and, consequently, if the market reacts to the related behaviour assumed by the selected companies.

Overall, we aim to address the following hypotheses by separating different variables of sustainability disclosure using content analysis:

*H_1 There is a positive correlation between the **separate (instead of aggregated) NF statement** and market value,*

*H_2 There is a negative correlation between the **same auditor** for both the AR and NF statements and market value,*

*H_3 There is a positive correlation between the **number of pages** of the NF statement and market value,*

*H_4 There is a positive correlation between the **presence of GRI** disclosure and market value, and*

*H_5 There is a positive correlation between the **number of times that "environment"** is included in the NF statement and market value.*

4. Research Method

4.1. Sample

The sample includes 65 Italian listed companies on the *Borsa Italiana*

Stock Exchange that were required to present the NF statement according to the Italian Legislative Decree 254/2016 and continuously presented the statement from 2017 to 2019. This should guarantee that the selected companies have a consolidated experience in the sustainability features and, specifically, in the presentation of NF statements. The dataset is taken from different databases, i.e., Amadeus *Bureau van Dijk* (*BvD*), *Datastream,* and *Sustainability Disclosure Database* (SDD), in addition to sustainability reports, annual reports and corporate websites.

Data were collected for 2019. They include a variety of industries, ranging from manufacturing to financial services. Specifically, the "commercial banks and financial institutions" category covers 21,54%, followed by the "industrial products and services" category with a coverage of 15,38%, the "fashion" category with a coverage of 12,31%, and the "public services", "mass media" and "building" sectors, each with 7,69% of the total analysed sample.

As already mentioned, the study focuses on one country (Italy) for two reasons: (1) difficulties in the comparability of results because sustainability information can partially differentiate from country to country (Cahan *et al*., 2016; Cucari *et al*., 2018; La Torre et al., 2018), and (2) Italy has witnessed a period of important legislation related to nonfinancial information and, specifically, to environmental and social aspects.

Finally, to test our statistical regression, we used the STATA software package.

4.2. Model specification

The basic argument of this study can be empirically tested in terms of Eq. (1), as specified below. The coefficients in Eq. (1) are estimated based on our regression analysis. It describes the proposed best practices match between Tobin's Q and nonfinancial variables reported below.

$$TobinQ = \beta_0 + \beta_1 DummySep + \beta_2 DummyAud + \beta_3 Pages + \beta_4 DummyGRIcomprehensive + \beta_5 DummyGRIcore + \beta_6 DummyGRIreferenced + \beta_7 "Environment" + \beta_{108} LN\_Assets + \varepsilon$$

Where:

$Tobin\ Q$ = market capitalization plus book value of debt, divided by book value of total assets;

$DummySep$ = A dummy scoring 1 if the NF Statement is separate from the Annual Report, 0 otherwise;
$DummyAud$ = A dummy scoring 1 if the same auditor issues the opinion for the Annual Report as well as for the NF Statement, 0 otherwise;
$Pages$ = the number of pages of NF Statement;
$DummyGRIcomprehensive$ = A dummy indicating 1 if the firm has joined the GRI programme applying the "comprehensive option", 0 otherwise;
$DummyGRIcore$ = A dummy indicating 1 if the firm has joined the GRI programme applying the "referenced-claim option", 0 otherwise;
"$Environment$" = A variable which indicates how many times the word "Environment" is included in the report;
LN_Employ = control variable 1 indicating the firm size in terms of the natural logarithm of employees number;
LN_Sales = control variable 2 indicating the firm size in terms of the natural logarithm of Sales Revenues;
LN_Assets = control variable 3 indicating the firm size in terms of the natural logarithm of Total Assets;
β_i = various model parameters,
i = 0 to 5, and
ε = the error term.

4.3. Measurement of variables

4.3.1. Dependent Variables

In this study, we use a market-based measure of firm performance Tobin's Q to measure our dependent variable, calculated as the firm's market capitalization plus the book value of debt divided by the book value of total assets. According to Nekhili *et al*. (2017), Tobin's Q is more pertinent than other accounting-based measures to capture the impact of sustainability reporting on firm value.

The reasons behind the adoption of Tobin's Q depended on three main elements:

- this measure is considered a forward-looking measure because it is based on stock market price;
- market-based measures generally show the notion of external stakeholders and may better capture the long-term value of sustainability activities (Orlitzky *et al*., 2003; Nekhili *et al*., 2017);
- it can be used to conduct comparison analysis on firms in different industries because it is not affected by accounting requirements (Chakravarthy, 1986).

More generally, market-based measures were found to be more suitable than accounting-based ones in reaping the financial benefits of nonfinancial information (Hillman, Keim, 2001).

4.3.2. Independent and Control Variables

The explanatory variables are presented as follows and consist of three dummy variables and one continuous variable:

- *Dummy Sep* measures the presence of a separate NF Statement (equal to 1) or aggregated with the Annual Report (equal to 1).
- *Dummy Aud* indicates whether the same auditor has issued the opinion for both the Annual Report and NF Statement (equal to 1) or, alternatively, the opinions for the reports have been issued by different auditors (equal to 0).
- *Pages* shows the number of pages dedicated to non-financial information. The current number of pages for each firm derived from consulting the Annual reports and NF Statements.
- *Dummies GRI* indicates whether a firm has joined the GRI initiative following the standards (equal to 1) or not (equal to 0). GRI is considered the most trusted and widely used sustainability framework in the world capable of communicating the firm's impact on critical sustainability issues such as climate change, human rights, governance and social well-being. This enables concrete action aimed at creating social, environmental and economic benefits for everyone. We must highlight that the respondents to the review of the Non-Financial Reporting Directive Consultation agreed that GRI provides the framework that would solve the problems identified with non-financial reporting (EC, 2020b).
- *Environment* regards the number of times the word "environment" occurs within the report (within the Annual Report if aggregated or NF Statement if separated).
- *Control Variables* are measured by the natural logarithm of total assets. Other metrics for size commonly used in studies of accounting and finance, as the natural logarithm of number of employees, the natural logarithm of sales revenues (Francis *et al*., 2004; Ge, McVay, 2005), have been found to be not applicable.

Table 1 - *Variables collection*

Variables	Sources
Tobin's Q	*AIDA BVD*
Dummy Sep	*Sustainability report, Annual Report*
Dummy Aud	*Sustainability report, Annual Report*
Pages	*Sustainability report, Annual Report*
Dummies GRI ("comprehensive" or "core" option, or "referenced claim")	*Sustainability Disclosure Database (SDD) and Sustainability report, Annual Report*
"Environment"	*Sustainability report, Annual Report*
Control Var (LN_Assets)	*AIDA BVD*

5. Empirical findings

5.1. Descriptive statistics

Table 2 shows descriptive statistics of the variables used in our model. As reported, the Tobin's Q is, on average, 1.021 with a minimum of 0.01 and a maximum of 5.81. The lowest number of pages are 5 while the highest are 352 with a standard deviation of 71.89152. Regarding "Environment", the lowest number of times the word "environment" is included is just 3 while the greatest number is 293 (Table 2). We also reported the descriptive statistics regarding the Dummies (Dummy Sep, Dummy Aud and Dummies GRI) and the control variable measuring the firms' size.

Table 2 - *Descriptive statistics*

	Obs	Mean	Min	Max	Std. Dev.
Tobin's Q	65	1038.815	14	9886	1590.97
Dummy Sep	65	.7538462	0	1	.4341216
Dummy Aud	65	.9846154	0	1	.1240347
Pages	65	113.9846	5	352	71.89152
GRI_compreh	65	.0615385	0	1	.2421856
GRI_core	65	.7538462	0	1	.4341216
GRI_referenced	65	.1846154	0	1	.3910046
"Environment"	65	44.95385	3	293	43.19955
LN_TotalAssets	65	15.15385	12	20	2.085896

We also provide the Pearson correlation analysis of all 65 firms (Table 3).

Table 3 - *Pearson's correlation matrix*

	TobinQ	Dummy Sep	Dummy Aud	Pages	GRI_compreh	GRI_core	GRI_ref	Environment	Ln_Assets
Tobin's Q	1.0000								
DummySep	-0.0835	1.0000							
Dummy Aud	0.0303	0.2188	1.0000						
Pages	-0.0615	0.4555	0.1454	1.0000					
GRI_compreh	-0.1317	0.1463	0.0320	0.3168	1.000				
GRI_core	-0.0974	0.1709	0.2188	0.0274	-0.4481	1.0000			
GRI_referenced	0.1898	-0.2804	-0.2627	-0.2267	-0.1218	-0.8327	1.0000		
"Environment"	-0.0754	0.1577	0.1048	0.4421	0.5618	-0.0531	-0.2890	1.0000	
LN_TotalAssets	-0.3551	0.0942	0.1301	0.2533	0.3831	0.0770	-0.3227	0.3484	1.0000

5.2. Regression results

To test our hypotheses, we used a baseline regression analysis with a cross-sectional regression. We regress *Tobin's Q* on all the factors selected for the non-financial disclosure mentioned in the section of Research Method to test the effect of all the variables hypothesized in the model. The results from the regression model for the total sample of Italian listed companies that are investigated are shown in Table 4. All the addressed variables are not statistically significant.

6. Conclusion and Discussion

Recently, there has been an intensely growing interest among scholars, practitioners, companies, public opinion, etc., concerning environmental and social issues and, consequently, a consistent increase in the volume of information disclosed by companies in this area.

Table 4 - *Regression results*
Tobin's Q = f [Dummy Sep, Dummy Aud, Pages, Dummy GRI, "Environment", LN_Employ. LN_Sales, LN_Assets]

Source	SS	df	MS
Model	24524716	7	3503530.86
Residual	137471180	57	2411775.08
Total	**161995896**	**64**	**2531185.87**
Number of obs	=	65	
F (7, 57)	=	1.45	
Prob > F	=	0.2028	
R-squared	=	0.1514	
Adj R-squared	=	0.0472	
Root MSE	=	1.553	

TobinQ	**Coeff.**	**Std. Err.**	**T**	**P>|t|**	**[95% Conf.**	**Interval]**
Dummy Sep	-256.6319	523.1441	-0.49	0.626	-1.304.21	790.9461
Dummy Aud	1377.96	1646.656	0.84	0.406	-1919.411	4675.331
Pages	1.010817	3.369046	0.30	0.765	-5.735581	7.757215
GRI	-697.8085	1220.669	-0.57	0.570	-3142.156	1746.539
	-463.7555	566.7616	-0.82	0.417	-1598.676	671.1651
	0	(omitted)				
"Environ-ment"	2.931819	5.964513	0.49	0.625	-9.011913	14.87555
LN_To-talAssets	-268.0016	106.9828	-2.51	0.015	-482.231	-53.7722
Cons	4082.299	2078.117	1.96	0.054	-79.05844	8243.657

P-value: * Sig 10% ** Sig 5% *** Sig 1% **** Sig .1%.

In this context, to meet stakeholders' expectations, companies have started implementing common patterns of social and environmental reporting, in conceptual contrast with the classical theory (Friedman, 1970), where the only company objective is maximizing its shareholders' profit.

The NFS represents the main document showing the social and environmental effects a company should disclose to provide investors and all various stakeholders with a more comprehensive portrait of corporate performance.

We analysed the entire population of Italian companies listed on *Borsa Italiana* that presented the NFS annually in 2017-2019 to test the relationship between some nonfinancial variables and firm MV. The analysed data refer to the 2019 NFSs.

According to the empirical findings, our study is only partially consistent with previous research. In our case, there is no variable of those investigated that has been found to be statistically significant, whilst all the sampled companies adhere to "the GRI initiative". The different "levels" of accordance with the GRI standards do not seem to affect the MV. This leads us to conclude that the accordance with generally recognized sustainable standards (i.e., GRI in the Italian context) appears to be a *de facto* requirement more than a choice for the public companies examined. The adoption of GRI standards appears to be required by the market to guarantee the stakeholders about the sustainability attitude of the company and its attention to be transparent on nonfinancial issues. From this perspective, it can be observed that generally recognized sustainability standards, with the presence of authoritative assurance, can be considered safeguarding stakeholders' information needs. This strengthens the idea, expressed in the stakeholder theory, that a relation with the stakeholders that overcomes financial information is crucial to the financial wealth of the entity. At the same time, the market does not yet seem to appreciate the different levels of accordance with GRI.

As mentioned above, the other variables ("separate publication of NFS", "number of pages", "presence of the same auditor for both annual report and NFS for the period" and "number of times the term 'environment' was used") were found to be not statistically significant.

We measured the above nonfinancial variables through content analysis, which has the benefit of high flexibility (Galant, Cadez, 2017), although the presence of a certain level of subjectivity may distort the reliability of the results.

Another contribution regards the country to which the study refers, i.e., Italy, which has never been examined in prior studies for the relationship between nonfinancial information and companies' MV. We decided to test the model on Italian listed companies affected by Decree no. 254/2016, which mandated the preparation of such a new statement.

Our research presents some limitations. First, we set a cross-sectional regression analysis on observations of the Italian listed companies required to prepare an NFS; the use of longitudinal analysis, instead, would allow for a larger number of observations.

However, even though we used a simple model based on a cross-sectional regression, it seems to be sufficiently adequate in this institutional context, where the mandatory disclosure of nonfinancial information applies only to large companies starting from 2017 following Legislative Decree no.

254/2016. In this context, panel data analysis would be relevant for developing future research on this topic, even in relation to the future development of sustainability standard setting.

The statistical analysis covers only 2019. Therefore, the findings cannot be generalized to other time periods, and the research could be enriched by monitoring the differences arising from the pandemic period and the consequent economic and financial effects. Finally, there may be other relevant nonfinancial variables gathered from the content analysis measuring nonfinancial information that were not reported due to a lack of available data. Despite these limitations, our study appears to provide important insights into the relationship between nonfinancial information included in NFSs and the market values of the largest Italian listed companies.

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