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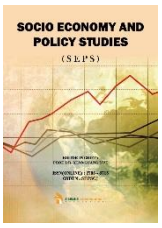

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RESEARCH ARTICLE

RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL PERFORMANCE (97 COMPANIES LISTED ON THE FTSE 100 LONDON STOCK EXCHANGE)

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ABSTRACT

Purpose: Recently, there has been a greater emphasis placed on the value of the social dimension and its contribution to the growth of businesses, particularly their financial and economic aspects. Stakeholders view social responsibility as being of particular importance because it will increase the profitability and profitability of their businesses without endangering society. This study intends to investigate the connection between corporate social responsibility (CSR) and financial performance (FP), two ideas that, despite first appearances, are strongly related from both an academic and practical standpoint. We used the (ESG) criterion to measure CSR variables, and the financial ratio Return On Assets (ROA) to measure FP. These chosen variables have been extensively used in earlier research, which has supported their potential impact on businesses' financial performance. Methodology: A quantitative methodology based on the analysis of extra-financial (ESG) data from the "Covalence" database and the financial information of 97 companies listed on the London FTSE 100 is used to perform the study. However, the scientific development environment Spyder 4.2.5 for Python was utilized to do the descriptive statistics and statistical modeling analyses utilizing multiple regression. Finding : The findings of the statistical tests conducted to determine whether the sub-hypotheses given in support of the main hypothesis (H1) were valid revealed that social (S) and governance (G) practices have a favorable and appreciable influence on CSR. On the other hand, they noted the absence of any linear or complicated link between Environmental (E) practices and EFP that was statistically significant. Implication: The study concluded that there is a positive and statistically significant link between CSR and financial success, proving that social enterprise may be profitable. This empirical study's findings provide proof that social policies improve financial performance. Because of the financial gain it brings to the business entity. The study advises that corporations be encouraged to step up their efforts and incorporate social issues into their short- and long-term objectives.

KEYWORDS

Corporate Social Responsibility, Financial performance, ESG criteria, ROA, FTSE100

1. INTRODUCTION

Understanding different concerns to social centent is becoming important to the world of business. Examining the effect of social content on company performance has become important, especially the part social responsability plays in helping business perform better financially and act in a way that benefits society as a whole. In fact, CSR now encompasses social and environmental issues ; it is a broader definition of the term « corporate responsability » that includes obligations to protect the environment, uphold the norms of civil society, and manage human ressources responsably (EL IMRANI and Ahmed, 2022). To increase company efficiency and protect society, some nations have created laws, guidelines, and best practices that encourage businesss to include social responsability into their plans. Currently, from both an academic and practical standpoint, the ideas of corporate social responsability (CSR) aand financial perdormance (FP) have grown to be intimately intertwined. Knowing that CSR is regarded as a lever for financial power and for the development of the relationship between firms and their external surrounding, they have seen a phenomenal rise and a shared interest on the part of various academic and professional actors. The operationalization of these two concepts has led many authors to identify the same indicators and criteria, even though they initially appear to be different from one another (Saulquin and Schier, 2007), so many research studies have focused on the nature of the relationship between CSR and FP to date.

In addition to quantitatively assessing these monetary and economic advantages, (G) independently on the FP represented by the variable Return On Assets (ROA). We anticipate that our study's findings will support the importance of the social axis in a company's financial efficiency. As a result, we will work to persuade the shareholders and managers of these businesses of the necessity of voluntarily integrating social policies into their overall business strategies because they will, first and foremost, be a source of profitabilities. The article is organized as follows: the section on "literature review and development of hypotheses" deals with the theoretical context, outlining the various definitions of CSR and the major theories upon which the study is predicated; the section on "development of hypotheses" proposes the main hypothesis and any supporting supporting hypotheses that address the question of whether CSR affects FP. The research design section follows with a description of how CSR and FP are measured. To illustrate how we understand the relationship between the two conceptions, we present the study

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population and the conceptual model of the research in the section titled "Research methodology." The "results and discussion" section also conducts empirical testing and analyses of the effects of variables E, S, and G on FP to determine whether or not our hypotheses are correct. The last portion offers directions for additional investigation.

1.1 Literature Review and Development of Hypotheses

The purpose of this preliminary and essential step is to examine the conceptualization of Corporate Social Responsibility (CSR), which is proving to be a little challenging given that it is a reality that is challenging to conceptualize. The two primary ideas that have contributed to its development and evolution over time are also to be given a theoretical reading in this project.

1.2 Theoretical Background

CSR is a multifaceted notion that, while initially appearing to be straightforward to comprehend and deal with, is really still proving challenging to define in a formal, rigid, and unambiguous manner that may garner widespread acceptance. Everyone attempts to rephrase things in a way that works best for them. The ambiguity around this concept was not established in a vacuum; rather, it is the result of a variety of thoughts and viewpoints, primarily because there are many different perspectives on how to give the term a simple, obvious definition.It addresses social and environmental issues and is presented as a broader interpretation of the traditional corporate responsibility framework, incorporating obligations for managing human resources as well as environmental protection constraints and respect for the rules of civil society balance (Allouche et al., 2004).One of the essential elements of value generation in CSR. In addition to reiterating the positive perception of innovation. El Imrani and Ahmed (2022) note that it is gaining popularity due to its importance as a driver of economic growth and wealth creation. In this way, whereas some people merely have economic duty, others have responsability extend beyond the law (Supiot et Baamonde, 2016). It is a development that comes from wiyhin the business itself and is a crucial component of success for new competitors.

According to Pesqueux (2018), CSR was a "pragmatic" and "proactive" response pressure from environmental, political, and social perspectives on multinational firms. CEO of Nature et Découvertes François Lemarchand is of the opinion that "developing our company on a sustainable and profitable basis by maintaining a balance between the aspirations of our customers, our teams, our suppliers, and our shareholders in order to make a positive contribution to the society in which we live" (Saulquin & Schier, 2007). Even though a number of reports and recommendations have been created and published at the institutional level by the European Commission, the World Bank, the UN, the OECD, ISO, ORSE, and CJD with the goal of defining a framework for CSR, this has led to the emergence of numerous specific standards and references for businesses.

CSR is defined as practices that allow businesses to "go beyond [applicable legal obligations] and invest in human capital, the environment, and stakeholder relations" in the European Commission's Green Paper from 2001. Additionally, it states that this refers to "voluntarily integrating social and environmental concerns into their business activities and stakeholder relations". based on ISO 26000 « *An organisation's responsibility for the impacts of its decisions and activities on society and the environment, reflected in ethical and transparent behaviour that contributes to sustainable development, including the health and well-being of society; takes into account the expectations of stakeholders; respects applicable laws while being consistent with international standards of behaviour; is integrated throughout the organisation and implemented in its relationships* ».

It is, in the words of Abdul Kazam Azad, President of the Republic of India, "the right action at the right time" (Tchinda et al., 2018). According to Boutiba & colleagues (2016), this notion can be broken down into the five major ideas shown in Figure 1. In this sense, a wide range of definitions were put forth in an effort to create only one that could be stringent and meaningful CSR, and all of these proposed definitions were constrained by the concept's two primary dimensions. One is to go beyond the law and regulations, and the other is to think of the corporation as a thing that is accountable to the internal and external stakeholders that it affects as well as to its shareholders (Lapointe & Gendron, 2004).

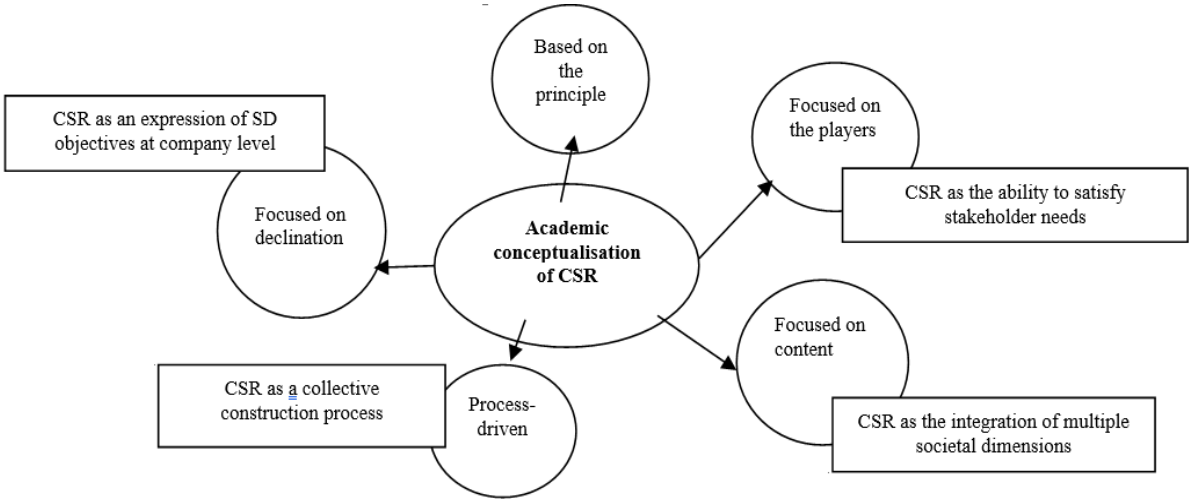

Figure 1: Conceptualisation of CSR

Source: Personal development based on the idea of (Boutiba et al., 2016)

Since CSR does not always and universally mean the same thing, there is room for interpretation in its definitions because the idea is still largely pliable despite the institutionalization brought about by the standards and metrics of national and international organizations (Tirilly, 2018). Public duty, social obligations, and corporate ethics are other terms that can be used to describe social responsibility (Acquier & Gond, 2007). A concept's theoretical underpinnings must be defined before it can be explained (Rosé, 2006). The distinction in how CSR is conceptualized relates to a distinction in how the role of the economic entity "the company" is determined in light of its responsibility to society. We shall discuss the "Neoclassical" and "Stakeholder" theories, which are of critical relevance in the CSR literature, in order to narrow our study concept.

1.3 Neoclassical theory

According to Levitt (1958), Friedman (1962, 1970), and Jensen (2001), the neo-classical philosophy known as "liberal thought" is based on the notion that connections between business and civil society can only be achieved from an economic point of view. According to them, by issuing shares on the market in order to further their own interests, these economic entities contribute to society's well-being, but at the expense of stakeholders' expectations, which can only be met if they maximize shareholder value (Cherkaoui, 2015). Many thinkers (Friedman, 1970; Vance, 1975; Drucker, 1984) have asserted that CSR has a detrimental effect on the business, particularly on the overall wealth of shareholders. The "trade-off" concept is supported by the fact that other researchers have shown this adverse relationship, as evidenced by Lee & Park (2010) and Hirigoyen & Poulain-Rhem (2014).

Milton Friedman, a vociferous opponent of CSR, has received the majority of the criticism. Theorist declared that "the one and only responsibility of business is to increase its profits" in 1962, completely rejecting the concept of CSR. His paper "The Social Responsibility of Business is to Increase Its Profits" was published in 1970, reinforcing his extreme

viewpoint and helping to popularize CSR criticism. Theorist claims that this theory is founded on an implicit agreement between the manager and the shareholder, whose primary goal is to use the productive entity's resources to increase wealth and make a profit, but without granting the manager the personal freedom to invest in stocks and/or Socially Responsible Investments (SRI). A breach of trust may have occurred as a result of this behavior toward the manager (Therese, 2020). Friedman has always viewed socially conscious endeavors and investments as sources of additional expenses that would materially reduce the company's competitiveness and overall financial performance. For his side, Bernoux (2014) concurs and claims that businesses engaging in these social acts are at a strategic disadvantage.

1.4 Stakeholder theory

Stakeholder theory (PP), one of the cornerstones of managerial theory and Freeman's "Stakeholder theory" (1984), did not become widely accepted as a framework for identifying the parties affected by the social responsibility that these companies engaged in until the early 1980s. During the administration of President Reagan (1981–1989), it originally developed in the United States as a liberal response to the pursuit of financial value and the dominance of the shareholder (Pesqueux, 2017). Due to its varied definition, the term "stakeholders" is polysemous. It is described as « *an individual or group that may affect or be affected, directly or indirectly, in the short term or long term, by the strategies, actions and messages (and their consequences) that the company implements to achieve its objectives* » in the AFNOR SD21000 guidance.

Since it serves as a "border object" that can assume different shapes while keeping the same name and obscuring the same reality, the concept of PP is an isonymy in and of itself (Minvielle, 2004 quoted by Pesqueux, 2017). Since these interests have intrinsic worth and no one interest is intended to predominate the others, the goal of these PPs is to create a constellation of interests that is both cooperative and competitive. As a result, any mention of this group would be intended to include shareholders (Pesqueux, 2017). The main foundations of the theory are directly related to the organisation. It is associated with responsibility in its empirical aspect in the form of a social relationship accommodating the "organisation" (group of managers with moral foundations) and the "stakeholders" (actors interested in all the activities carried out and decisions taken by the company). Several authors have based their research on this theory (Freeman, 1984; Clarkson, 1995; Jones, 1995; Wood & Jones, 1995; Mitchell & al., 1997). It has therefore made it possible to operationalise the set of strategic responses by listing the different players who form it. It is a hybrid empirico-normative theory of responsibility capable of presenting results based on prescribed norms. Several authors classify it in the instrumental framework, while others include it in the normative framework.

1.5 Development of hypotheses

The lack of agreement and genuine consensus over the nature of this link is what has sparked research interest in the relationship between CSR and FP. The empirical studies conducted by theorists to determine the nature of the relationship between CSR and FP go in one of two directions (McGuire & al., 1988; Preston & al., 1991; Preston & O'Bannon, 1997; McWilliams & Siegel, 2001; Moore, 2001; Margolis & Walsh, 2003; Barnett & Salomon, 2006; Brammer & Millington 2008; Margolis & al., 2011). The first is based on the analysis of recent events, and its primary objective is to gauge the effects of businesses' active participation in both socially responsible and irresponsible actions. The second, based on accounting and/or financial performance metrics, gauges the extent of this relationship's long-term impact.

Some of these research suggest a significant and complete relationship between CSR and financial performance. Others claim that there may be a number of divergent and convergent tendencies that are inconsistent with one another in this relationship. The nature of this link has thus been clarified by a wide range of theoretical stances. The available money hypothesis is predicated on the notion that CSR is directly influenced by financial performance. As a result, a company's ability to integrate itself into a social investment program and address the main issues of its stakeholders will increase with how well it does financially and vice versa. The research of Preston et al. (1991); Kraft & Hage (1990) provided some support for this notion. The social impact hypothesis based on stakeholder theory, on the other hand, is the complete opposite of the first one. It is predicated on the notion that when a company works to meet the interests of its stakeholders, defined by Freeman (1984) as « *any group or individual who can affect or be affected by the achievement of the company's objectives* » and by Waddock & Graves (1997) as the company's image and reputation, it simultaneously advances the company's.

According to Waddock & Graves (1997), the company's image and reputation, it encourages both increased economic and financial performance. Despite multiple attempts at empirical confirmation (McGuire & al., 1988 and 1990; Preston & al., 1991), it is doubtful that this hypothesis will be confirmed at this time. Additionally, CSR enables companies to maximize profits and minimize expenditures (Orlitzky et al., 2003; Margolis et al., 2007; Nelling et al., 2009). According to Fikri (2015), « *the better a company performs in social terms, the higher its profitability* », i.e., the socially responsible corporation is projected to earn above-average profits. Although it has been demonstrated (Archer & Haire, 1975; Moore, 2001; Barnett & Salomon, 2002), the complexity hypothesis contends that the link between CSR and FP is more complex, i.e. non-linear, as stated by Bnouni, 2011. It reveals two parabolic relationships, the first of which is in the form of an inverted "U", "Ω", which can be explained by the fact that CSR initially has a positive influence on FFP, but when it reaches the optimum this relationship is negatively affected and so the social aspect no longer improves financial performance. The second, according to Barnett and Salomon (2006), is in the form of a "U", according to which any initial investment in CSR may generate additional costs for the company, which may initially reduce the level of FP, before increasing it later. In the light of all these elements and on the basis of the social impact hypothesis and the complexity hypothesis, we put forward the central hypothesis (H1) of our research:

H1: CSR has an impact on FP

This central hypothesis is supplemented by three sub-hypotheses that allow the impact of variables E, S and G to be measured separately and the form and sign of this impact to be verified

$H_{1.1}$: the "Environmental Practices" indicator has an impact on the FP.

$H_{1.2}$: the "Social Practices" indicator has an impact on the FP.

$H_{1.3}$: the "Governance Practices" indicator impacts the FP.

2. Research Design

2.1 Measuring CSR

The KLD database, which is regarded as the most comprehensive source of social information and is frequently used by researchers due to its multidimensional nature, reputational surveys, and other techniques have all been used in the literature to measure CSR (Chatterji et al., 2009; Carroll & Shabana, 2010). ESG (environmental, social, and corporate governance) factors were used as the dependent variable in the study. Rating organizations evaluate and rate these social parameters to identify the top businesses based on non-financial criteria. In the case of requested ratings, these non-financial rating firms make rating databases available to their clients, who can be investors, founders, or the companies themselves. The weightings of the ESG criteria established by the agencies are used to calculate these assessments. Each of the rating agencies has created its own technique because there is no common reference for non-financial ratings. The majority, however, base their rating grids on the same group of international standards, including the ISO 26000, the GRI reporting framework, and the UN Global Compact.

Some organizations use "stakeholder committees" and/or investors to assess the questionnaires that are issued to businesses on an annual basis. Numerous techniques have been employed to quantify CSR in light of the literature and in accordance with the various studies addressing the link examined in this research. As a matter of fact, a number of authors have used environmental, social, and governance (ESG) factors as CSR measurement variables (Sharfman, 1993; Hillman & Keim, 2001; Van de Velde & al., 2005; Manescu, 2009; Choi & Wang, 2009; Jiao, 2010; Lev & al., 2010; Liu & al., 2011; Tebini et al., 2014; Liu et al.).

2.2. Measuring financial performance

According to Salgado (2013), financial performance has historically been seen from an economic perspective, where profitability and sustainability are the primary goals. However, according to Grant et al. (1988) ; Hoskinson, (1990), the majority of businesses prefer to use financial metrics to assess their success (Amami et al., 2016). The existence of a number of indicators measuring PFE, such as sales volume and growth, gross margin, gross operating surplus (EBITDA), working capital requirement (WCR) management, break-even point, financial profitability, the price-earnings ratio (PER), etc., is suggested by research into the relationship between the two constructs. All these indicators fall into two main categories. Accounting indicators such as return on assets (ROA) (Masoud & Halaseh, 2017), financial profitability (ROE) (Garcia-Castro, 2010), profitability (ROS) (Callan & Thomas, 2009), return on investment

(ROI) (Sinha & al, 2018) or measures taken from Table 1 financial statements, which are supposed to explain the historical outcome of companies' past performance (Freedman & Jaggi, 1982; McGuire & al., 1988; Preston & O'Bannon, 1997; Zahra, 2008; Nelling & Webb, 2009; Mishra & Suar, 2010; Tebini, 2013; Ta & Bui, 2018), offer little indication of future performance. And stock market or market indicators such as Price Earning Ratios (PER), Market Value-Added (MVA), Market to book value (MBV), Tobin's Q, which offer a better and clearer indication of the future performance of companies (Charreaux 1998; Banker et al., 2000; Castro-Garcia, 2010; Callan and Thomas, 2009; Rodriguez-Fernandez, 2015) and refer to investors' assessments and expectations of company performance. From this, we can deduce that stock market performance admits of measuring the market value of the company while its accounting counterpart allows us to measure its efficiency.

Table 1: Accounting measures of financial performance

Categories	Variables	Authors
Profitability	Total Return	Verschoor (1998) ; Graves et Waddock (1999).
	Return on equity	Bowma et Haire (1975) ; Pava et Krausz (1996) ; Preston et O'Bannon (1997) ; Verschoor (1998) ; Moore (2001) ; Ruf et al. (2001) ; Seifert, Morris et Barktkus (2003)
	Return on sales	Waddock et Graves (1997) ; McGuire et al. (1988) ; Graves et Waddock (1999) ; Stanwick et Stanwick (1998) ; Ruf et al. (2001) ; Seifert et al. (2003)
	Return on investment	Preston et O'Bannon (1997)
	Profit	Verschoor (1998) ; Stanwick et Stanwick (1998)
	Net profit	Verschoor (1998)
Use of Assets	Return on assets	McGuire et al. (1988) ; O'Neil et al. (1989) ; Waddock et Graves (1997) ; Pava et Krausz (1996) ; Graves et Waddock (1999) ; Berman et al. (1999) ; Simpson et Kohers (2002) ; Seifert et al. (2003).
	Total assets	McGuire et al (1988) ; Griffin et Mahon (1997).
	Age of employees	Cochran et Wood (1984) ; Griffin et Mahon (1997).
Growth	Sales growth /sales	McGuire et al. (1988) ; Verschoor (1998); Moore (2001) ; Ruf et al. (2001)
	Asset growth	McGuire et al. (1988)

Source: (Griffin et Mahon, 1997 cité par Zeribi et Boussoura, 2007)

CSR has a bigger impact on accounting performance than on stock market performance, according to the findings of numerous studies (Orlitzky et al., 2003; Margolis et al., 2007; Peloza, 2009; Wang & Qian, 2011; Pan et al., 2014). Therefore, it is believed that CSR has a stronger correlation with accounting indicators than with stock market indicators (Orlitzky et al., 2003). We simply examine ROA as an accounting indicator evaluating FP in this paper.

Known in English as ROA (Return On Assets) and in French as Rentabilité des Actifs (Return on Assets), it is a variable that measures economic profitability, as well as an indicator measuring the degree of efficiency of the company in improving the growth of its shares. It is considered one of the most widely used indicators in most studies for calculating financial performance (Griffin and Mahon, 1997; Sun, 2012; Rodriguez-Fernandez, 2015; Bani-Khaled, 2021). The ROA is considered to be the most widely used indicator in the literature to study the relationship between CSR and FFP.

The results of these studies support a positive link between CSR and EFP (Callan & Thomas, 2009; Garcia-Castro & al., 2010; Sun, 2012; Lin & al., 2015; Rodriguez- Fernandez, 2015; Kablan, 2017; Bani-Khaled, 2021) and therefore support hypothesis 1 of "Social Impact". As they support a negative link (Lee & Park, 2010) and therefore support hypothesis 3 "trade-off". Whereas the "Neutrality" hypothesis is reinforced by the authors' study (Aupperle & al., 1985; Garcia-Castro & al., 2011; Taskin, 2015). In addition, Ory & Petitjean (2014) also used this indicator in their study, but as a control variable.

We concur with the writers that have looked into the beneficial effect of CSR on FP in light of all of these studies and outcomes, and we will utilize the ROA ratio as a variable for measuring FP.

ROA = (Net income + Interest on borrowings) / (Shareholders' equity + Financial debt)

3. Research Methodology

3.1 Study population and sample

The population studied is made up of 97 companies listed on the London FTSE 100 stock exchange. A description of the study variables is shown in Table 2. All extra-financial data concerning ESG ratings were collected from the "Covalence" database for the year 2022. While the financial data was collected and calculated from the financial reports of these companies published officially on their websites, as well as from the value investment website Gurufocus.com and the research platform for long-term investors Macrotrends.net. The financial ratio used in this analysis to determine the PFE variable is calculated from these financial statements. This calculation was carried out by us.

Table 2: Variables in the study sample

	Variable name	Type of variable	Unit of measurement	Description
FP	ROA	Quantitative	Ratios	Return on Assets. Economic Profitability Indicator which determines the allocation result of all the resources invested by the company.
RSE	Environment	Quantitative	Score	Topics dealing with the quality of the natural environment.
	Social	Quantitative	Score	Topics relating to the interests of citizens and their rights to live in a community.
	Governance	Quantitative	Score	Topics related to company management and their internal and external environment.

3.2 Research model

The variables chosen have been widely used in previous studies and have confirmed their potential influence on companies' financial performance. On this basis and following the literature review, the basic conceptual model is given in Figure 2, with the dependent variable (CSR) measured by the Environmental (E), Social (S) and Governance (G) criteria, and the single independent variable (PFE) measured by the financial ratio Return on Assets (ROA).

To achieve the intended objectives of this study, a multiple regression model (MLR) was used as shown in the model equation:

Theoretical model (E, S and G)

$$FP = \alpha_0 + \alpha_1 . E + \alpha_2 . S + \alpha_3 . G + \alpha_4 . E2 + \alpha_5 . S2 + \alpha_6 . G2 + \varepsilon i \quad (1)$$

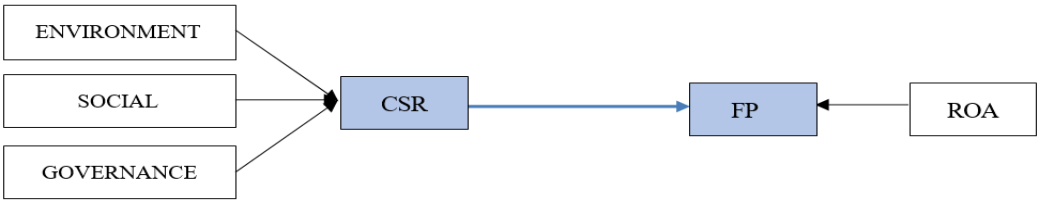

Figure 2: Conceptual research model

Source : Personal elaboration

4. Results and Discussion

4.1 Descriptive statistics

Firstly, the statistical analysis carried out using the "Spyder" development environment for Python, showed a highly asymmetric distribution due to the presence of outliers, so that identification and appropriate treatment were necessary. To this end, we opted for outlier identification and replacement using the HAMPEL filter, which belongs to the class of decision filters, to correct outliers and transform them into homogeneous data. Table 3 provides summary statistics for the quantitative variables in this study, where the value of the dependent variables is given by the score obtained for each variable, while the value of the independent variable is given by the value of the financial ratio.

Table 3: Descriptive statistics

	E	S	G	ROA
Nombre	97	97	97	97
Mean	71,8532	71,2469	68,8975	0,0489
St - Dev	13,2879	6,7896	6,0978	0,0479
Min	49,6667	47,0749	47,7189	-0,0911
25%	53,0517	62,0269	59,6477	0,0172
50%	69,6156	66,0964	64,9189	0,0418
75%	80,1397	70,3204	68,8242	0,0682
Max	92,3064	85,9012	81,2645	0,1995
Jarque-Bera	14,0876	0,7245	1,1123	16,1745
Proba (P-Value)	0,0018	0,0000	0,0000	0,0041
Normality	**Rejected**	**Rejected**	**Rejected**	**Rejected**

Source: Personal elaboration

Table 3 shows the results of the data analysis, which showed that the variables E, S, and G all have equal importance provided that their averages are close to 70. Given that it has the biggest standard deviation of the explanatory variables, variable E is in charge of their dispersion. The variable G, on the other hand, is in charge of concentration, which has the lowest standard deviation. The social score (E, S, and G) ranged from 49.6667 to 92.3064, showing a notable disparity in the E, S, and G scores that can be related to the level of compliance with CSR standards. With a mean return of 0.04 and a standard deviation of 0.04 for the ROA variable, the range of the mean was between -0.0911 and 0.1995. This suggests that there is a discrepancy in the ROA of the international companies utilized in this analysis, which is likely caused by total assets. The JARQUE-BERA normality test gives us a P-value for the dependent and independent variables that is close to 0, which prompts us to reject the H0 hypothesis of normality. As a result, this might have a bad effect on how reliable the linear regression model is. With values of 0.26, 0.35, and 0.25 correspondingly, the FP variable is positive, but it is not strong, as are the E, S, and G variables. Considering the outcomes, the model does not exhibit multicollinearity issues. This informal and graphical observation thus far is in support of the idea.

Table 4: Correlation between variables

E				
S	0,69			
G	0,44	0,47	**1**	
ROA	0,26	0,35	0,25	**1**
	E	**S**	**G**	**ROA**

Source: Own development

In order to ascertain the cause-and-effect relationship between our variable to be explained (FP) and our explanatory variables E, S, and G, we will proceed to the data modeling phase after our descriptive analysis.

4.2 Empirical results

According to Table 5, we utilized multiple regression without taking into account interaction effects to see whether the model's advanced equation was capable of explaining the suggested financial performance. The scales of measurement that varied between the explanatory variables and the variable to be explained had to be unified prior to the modelling stage. This entails standardizing data to bring everything into alignment on a single scale. The ROBUST-SCALER approach was applied to this investigation, which uses the median and the interquartile range as the two strongest position and dispersion parameters for the data's center and range.

Table 5: Modelling the FP as a function of the variables E, S and G

Theoretical model (E, S and G):

$$PF = \alpha_0 + \alpha_1.E + \alpha_2.S + \alpha_3.G + \alpha 4.E^2 + \alpha_5.S^2 + \alpha_6.G^2 + \varepsilon_i$$

Coefficients et indices de mesure

R^2	R^2-ajusté	F-statistique	Prob (F)	Durbin-Watson
0,198	0,172	6,114	0,0000	1,581

Coefficients et paramètres de mesure

	Coef	T-statistique	P-value
Constante	-0,1941	-1,218	0,217
E	-0,0467	-0,189	0,869
S	0,3245	2,197	**0,038**
G	0,2477	1,805	0,089
E^2	0,0818	0,219	0,841
S^2	-0,0503	-0,503	0,713
G^2	0,6014	4,079	**0,000**

Adjusted model:

$$\boldsymbol{FP = -0,1914 - 0,0467E + 0,3245S + 0,2477G + 0,0818E^2 - 0,0503S^2 + 0,6014G^2}$$

Source : Personal elaboration

A modest outcome for our model is that it explains 19.8% of the variation in the financial performance variable. Given that the FFP can also be explained by other variables like return on equity, return on sector sales, cost management, etc., this finding demonstrates that the independent variables E, S, and G alone are able to explain 19.8% of the FP. Our model's modified R-squared, which penalizes the R-squared formula based on the number of variables, is not particularly noteworthy. Our model's adjusted R-squared, which penalizes the R-squared formula based on the number of variables, yields an adjusted score of 17.2%, indicating that some variables either have no effect on the model's R-squared or have a very little impact.

With an F-statistic of 6.114 and a P-value of 0.000 less than the 0.05 significance level, the model was likewise significant. The sample data provide sufficient evidence to infer that the regression model fits the data better than the model without independent variables, which suggests that the variables E, S, and G in the model increase the fit.

The variables S and G^2, which have values of 0.038 and 0.000, respectively, are also statistically significant because their P-values are under the 0.05 level of significance. In other words, although being significantly over the 0.05 significance level, the association between financial success and the other variables is not statistically significant. Given that the inclusion of quadratic terms in this model reflects the double effort made by corporations in the social component to increase FP, the best model in this

regard simply included the two variables S and G^2.

The Durbin-Watson test result of 0.713, which denotes a uniform distribution of errors in our data and the absence of heteroscedasticity, supports the model's homoscedasticity and lends further robustness to the conclusions made.

4.3 Discussion of the results

We must first demonstrate that the previously proposed sub-hypotheses are true before determining whether the core hypothesis, H1, is true. We confirm the absence of a linear or complex relationship between the two variables "Environment" and FP, thereby announcing hypothesis $H_{1.1}$, and based on the findings of the tests conducted to determine the validity of hypothesis $H_{1.1}$, which claims that environmental practices have an impact on FP, and on the basis of the non-significant P-value for both the linear and quadratic terms.

The presence of a positive and significant impact of these social practices on FP was confirmed for the second sub-hypothesis $H_{1.2}$ based on the results obtained, but only in linear form, meaning that the greater the increase in a company's financial performance, the greater the increase in social practice investment. This declares the viability of hypothesis $H_{1.2}$, supports the social impact hypothesis, and is consistent with the work of (Griffin & Mahon, 1997; Waddock & Graves, 1997; Verschoor & Murphy, 2002; Nelling & Webb, 2006; Lee & Park, 2010; Anderson & Dejoy, 2011; Sun, 2012; Lin & Dong, 2018) who have established a positive relationship between CSR and FP.

The existence of a positive and statistically significant impact of governance practices on the PFE, taking a non-linear form, is the third hypothesis ($H_{1.3}$), with a very significant P-value of 0. This result supports the hypothesis that there is a complex curvilinear relationship with an inverted "U" shape that is initially positively influenced by governance practices on the PFE, but that when this performance threshold is reached, these governance practices take a negative turn and stop improving financial performance.

We validate the positive and significant influence of CSR on the FP and, as a result, the validity of the primary hypothesis H1 on the basis of the outcomes of the validation of sub-hypotheses $H_{1.2}$ and $H_{1.3}$ relating to, respectively, the impact of social and governance practices on the FP.

5. Conclusion

The idea of increasing a company's financial viability by focusing on social issues is still one that both people are interested in and concerned about. Given the increasing number of studies and research projects being conducted on it by both scholars and specialists, it is a topic of interest. Due to their prior conviction that the primary goal of establishing a company is financial profit, managers purposefully do not include social responsibility as a strategy or as an investment that can be profitable in the long term for their companies, echoing Friedman's famous quote from 1962 that "*the only responsibility of companies is to increase profits*." However, the main goal of this research and the question we set out to answer was to examine the effects of this social aspect on company performance, particularly the part that social responsibility plays in enhancing EFP and acting in a socially responsible manner for the benefit of society as a whole. To do this, we started with a survey of the literature in which we attempted to define CSR in accordance with various theoretical and managerial viewpoints. Next, we explained the two key theories in the CSR literature, "Neoclassical" and "Stakeholder." To do this, we first conducted a review of the literature in an effort to narrow the definition of CSR in accordance with various managerial and theoretical perspectives, and we then provided an explanation of the two key theories in the CSR literature—"Neoclassical" and "Stakeholder" theories. And we discovered that stakeholder theory offers the most reliable foundation for our investigation, in agreement with the authors who served as references in our development of the theoretical approach to our research. The study used considerations (ESG) as the dependent variable and the ROA ratio as the independent variable measuring FP to examine the impact of the social axis on the financial efficiency of the company and, as a result, to validate hypothesis 1. While using the "Spyder" programming environment for Python, the statistical analysis of the 97 companies listed on the FTSE 100 London Stock Exchange was done. Multiple regression analysis of the CSR/PFE relationship demonstrated that there is no significant correlation between "E" and PFE. On the other hand, a complex form that has a positive and significant influence on "G" and EFP and a positive and substantial linear form between "S" and FP support the positive and significant influence of CSR on FP. Our empirical findings support Freeman's (1984) stakeholder theory as the best source for researching the interaction between society and the firm. Additionally, this study has demonstrated that social issues are preferable to a company's financial features. Companies that prioritize CSR are more likely to see an improvement in their financial success, which motivates them to include CSR as a crucial component of their long-term goals. Finally, we think that this work makes an important contribution by analyzing the influence of ESG criteria separately rather than collectively, utilizing their weighted or arithmetic average. This division of the ESG variables has made it possible for us to identify which variable has the biggest impact on the PFE and, as a result, increases the value of the ESG combination.

The study has limitations related to the culture of the companies studied, their size, their continental affiliation, and even their openness to CSR regulations, even though the results were positive despite the simultaneous presence of two forms, linear and quadratic. Future studies should have access to these constraints.

References

Acquier, A., & Gond, J. P. 2007. Aux sources de la responsabilité sociale de l'entreprise: à la (re) découverte d'un ouvrage fondateur, Social Responsibilities of the Businessman d'Howard Bowen. Finance contrôle stratégie, 10(2), 5-35.

Ajzen, M., Donis, C., & Taskin, L. 2015. Kaléidoscope des Nouvelles Formes d'Organisation du Travail: L'instrumentalisation stupide d'un idéal collaboratif et démocratique. Gestion 2000, 32(3), 125-147.

Al-Kobaisi, M. F., Rixon, F. J., McDougall, I., & Preston, V. G. 1991. The herpes simplex virus UL33 gene product is required for the assembly of full capsids. Virology, 180(1), 380-388.

Allouche, J., Charpentier, M., & Guillot-Soulez, C. 2004. Un panorama des études académiques sur l'interaction performances sociales/performances économiques et financières. Actes du, 15.

Amami, M., Pasi, G., Stella, F., & Faiz, R. 2016. An lda-based approach to scientific paper recommendation. In Natural Language Processing and Information Systems: 21st International Conference on Applications of Natural Language to Information Systems, NLDB 2016, Salford, UK, June 22-24, 2016, Proceedings 21 (pp. 200-210). Springer International Publishing.

Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. 1985. An empirical examination of the relationship between corporate social responsibility and profitability. Academy of management Journal, 28(2), 446-463.

Bani-Khaled, S. M., El-Dalabeeh, A. R. K., Al-Olimat, N. H., & Al Shbail, M. O. 2021. Relationship between corporate social responsibility expenditures and performance in Jordanian commercial banks. The Journal of Asian Finance, Economics and Business, 8(3), 539-549.

Banker, R. D., Lee, S. Y., Potter, G., & Srinivasan, D. 2000. An empirical analysis of continuing improvements following the implementation of a performance-based compensation plan. Journal of Accounting and Economics, 30(3), 315-350.

Barnett, M. L., & Salomon, R. M. 2002, August. Unpacking Social Responsibility: The Curvilinear Relationship Between Social And Financial Performance. In Academy of Management Proceedings (Vol. 2002, No. 1, pp. B1-B6). Briarcliff Manor, NY 10510: Academy of Management.

Barnett, M. L., & Salomon, R. M. 2006. Beyond dichotomy: The curvilinear relationship between social responsibility and financial performance. Strategic management journal, 27(11), 1101-1122.

Barr-Anderson, D. J., AuYoung, M., Whitt-Glover, M. C., Glenn, B. A., & Yancey, A. K. 2011. Integration of short bouts of physical activity into organizational routine: A systematic review of the literature. American journal of preventive medicine, 40(1), 76-93.

Betters, E., Liu, Y., Kjaeldgaard, A., Sundström, E., & García-Castro, M. I. 2010. Analysis of early human neural crest development. Developmental biology, 344(2), 578-592.

Bnouni, I. 2011. Corporate social responsibility (CSR) and financial performance (FP): case of french SMEs. In ICSB World Conference Proceedings (pp. 1-23). International Council for Small Business (ICSB).

Bolyen, E., Rideout, J. R., Dillon, M. R., Bokulich, N. A., Abnet, C., Al-Ghalith, G. A., ... & Caporaso, J. G. 2018. QIIME 2: Reproducible, interactive, scalable, and extensible microbiome data science (No. e27295v1). PeerJ Preprints.

Brammer, S., & Millington, A. 2008. Does it pay to be different? An analysis of the relationship between corporate social and financial performance. Strategic management journal, 29(12), 1325-1343.

Callan, S. J., & Thomas, J. M. 2009. Corporate financial performance and corporate social performance: an update and reinvestigation. Corporate social responsibility and environmental management, 16(2), 61-78.

Carroll, A. B., & Shabana, K. M. 2010. The business case for corporate social responsibility: A review of concepts, research and practice. International journal of management reviews, 12(1), 85-105.

Cesari, S., Bernoux, M., Moncuquet, P., Kroj, T., & Dodds, P. N. 2014. A novel conserved mechanism for plant NLR protein pairs: the "integrated decoy" hypothesis. Frontiers in plant science, 5, 606.

Charreaux, G. 1998. Le point sur la mesure de performance des entreprises. Banque et Marchés, 34, 46-51.

Chen, L., Xiong, Z., Sun, L., Yang, J., & Jin, Q. 2012. VFDB 2012 update: toward the genetic diversity and molecular evolution of bacterial virulence factors. Nucleic acids research, 40(D1), D641-D645.

Chen, Y. C., Lu, Y. J., Lin, C. N., Tian, Y. Z., Gao, C. J., Dong, L., & Shan, C. X. 2018. Self-powered diamond/β-Ga 2 O 3 photodetectors for solar-blind imaging. Journal of Materials Chemistry C, 6(21), 5727-5732.

Chérif, T., Saidani, M., Decré, D., Boutiba-Ben Boubaker, I., & Arlet, G. 2016. Cooccurrence of Multiple AmpC β-Lactamases in Escherichia coli, Klebsiella pneumoniae, and Proteus mirabilis in Tunisia. Antimicrobial Agents and Chemotherapy, 60(1), 44-51.

Choi, J. J., Feshitan, J. A., Baseri, B., Wang, S., Tung, Y. S., Borden, M. A., & Konofagou, E. E. 2009. Microbubble-size dependence of focused ultrasound-induced blood–brain barrier opening in mice in vivo. IEEE Transactions on Biomedical Engineering, 57(1), 145-154.

Chrisman, J. J., & Archer, R. W. 1984. Small business social responsibility: some perceptions and insights. American Journal of Small Business, 9(2), 46-58.

De Rozario, P., & Pesqueux, Y. 2018. Théorie des organisations. Paris: Pearson.

Dean Jr, J. W., & Sharfman, M. P. 1993. Procedural rationality in the strategic decision-making process. Journal of management Studies, 30(4), 587-610.

Drucker, P. F. 1984. Converting social problems into business opportunities: The new meaning of corporate social responsibility. California Management Review (pre-1986), 26(000002), 53.

El Imrani, S., & Ahmed, T. A. Q. I. 2022. Relation entre la Responsabilité Sociale des Entreprises et la Performance Financière. International Journal of Accounting, Finance, Auditing, Management and Economics, 3(4-1), 132-150.

Etlin, A., Blivis, D., Ben-Zwi, M., & Lev-Tov, A. 2010. Long and short multifunicular projections of sacral neurons are activated by sensory input to produce locomotor activity in the absence of supraspinal control. Journal of Neuroscience, 30(31), 10324-10336.

Fa-Si-Oen, P., Roumen, R., Buitenweg, J., van de Velde, C., van Geldere, D., Putter, H., ... & Croiset van Uchelen, F. 2005. Mechanical bowel preparation or not? Outcome of a multicenter, randomized trial in elective open colon surgery. Diseases of the colon & rectum, 48, 1509-1516.

Freedman, M., & Jaggi, B. 1982. Pollution disclosures, pollution performance and economic performance. Omega, 10(2), 167-176.

Friedman, M. 1970. A theoretical framework for monetary analysis. Journal of Political Economy, 78(2), 193-238.

Gendron, C., Lapointe, A., & Turcotte, M. F. 2004. Responsabilité sociale et régulation de l'entreprise mondialisée. Relations industrielles, 59(1), 73-100.

Grant, J. W. 1990. Aggressiveness and the foraging behaviour of young-of-the-year brook charr (Salvelinus fontinalis). Canadian Journal of Fisheries and Aquatic Sciences, 47(5), 915-920.

Griffin, J. J., & Mahon, J. F. 1997. The corporate social performance and corporate financial performance debate: Twenty-five years of incomparable research. Business & society, 36(1), 5-31.

Grossi, P. A., Tebini, A., & Dalla Gasperina, D. 2014. Novel multidrug resistant microorganisms in critically ill: a potential threat. Minerva anestesiologica, 81(1), 52-64.

Hillman, A. J., & Keim, G. D. 2001. Shareholder value, stakeholder management, and social issues: what's the bottom line? Strategic management journal, 22(2), 125-139.

Holder, A. A., & Freeman, R. R. 1984. The three major antigens on the surface of Plasmodium falciparum merozoites are derived from a single high molecular weight precursor. The Journal of experimental medicine, 160(2), 624-629.

Jiao, L., Wang, X., Diankov, G., Wang, H., & Dai, H. 2010. Facile synthesis of high-quality graphene nanoribbons. Nature nanotechnology, 5(5), 321-325.

Jones, T. R., Labelle, M., Belley, M., Champion, E., Charette, L., Evans, J., ... & Abraham, W. M. 1995. Pharmacology of montelukast sodium (Singulair™), a potent and selective leukotriene D4 receptor antagonist. Canadian journal of physiology and pharmacology, 73(2), 191-201.

Kessler, R. C., Aguilar-Gaxiola, S., Alonso, J., Chatterji, S., Lee, S., Ormel, J., ... & Wang, P. S. 2009. The global burden of mental disorders: an update from the WHO World Mental Health (WMH) surveys. Epidemiology and Psychiatric Sciences, 18(1), 23-33.

Kouanou, A. T., Tchiotsop, D., Kengne, R., Zephirin, D. T., Armele, N. M. A., & Tchinda, R. 2018. An optimal big data workflow for biomedical image analysis. Informatics in Medicine Unlocked, 11, 68-74.

Kraft, K. L., & Hage, J. 1990. Strategy, social responsibility and implementation. Journal of Business Ethics, 9, 11-19.

Levitt, J., & Levitt, J. 1958. Frost, drought, and heat resistance (pp. 1-85). Springer Vienna.

Mănescu, R., Bărăscu, D., Mocanu, C., Pîrvănescu, H., Mîndriă, I., Bălăşoiu, M., & Turculeanu, A. 2009. Subconjunctival nodule with Dirofilaria repens. Chirurgia (Bucharest, Romania: 1990), 104(1), 95-97.

Margolis, J. D., & Walsh, J. P. 2003. Misery loves companies: Rethinking social initiatives by business. Administrative science quarterly, 48(2), 268-305.

Masoud, N., & Halaseh, A. 2017. Corporate social responsibility and company performance: An empirical analysis of Jordanian companies listed on Amman Stock Exchange. British Journal of Education, Society and Behavioral Science, 19(1), 1-26.

McGUIRE, A. V. 1988. Petrology of mantle xenoliths from Harrat al Kishb: the mantle beneath western Saudi Arabia. Journal of petrology, 29(1), 73-92.

McWilliams, A., & Siegel, D. 2001. Corporate social responsibility: A theory of the firm perspective. Academy of management review, 26(1), 117-127.

Minvielle, É., & Contandriopoulos, A. P. 2004. La conduite du changement: Quelles leçons tirer de la restructuration hospitalière? 1. Revue française de gestion, (3), 29-53.

Monk, T. K., Flaherty, J. F., Frank, E., Hoskinson, K., & Kupfer, D. J. 1990. The Social Rhythm Metric: An instrument to quantify the daily rhythms of life. Journal of Nervous and Mental Disease.

Morales-Morales, D., Redón, R., Wang, Z., Lee, D. W., Yung, C., Magnuson, K., & Jensen, C. M. 2001. Selective dehydrogenation of alcohols and diols catalyzed by a dihydrido iridium PCP pincer complex. Canadian Journal of Chemistry, 79(5-6), 823-829.

Moss, B., Kosten, S., Meerhoff, M., Battarbee, R. W., Jeppesen, E., Mazzeo, N.,

... & Scheffer, M. 2011. Allied attack: climate change and eutrophication. Inland waters, 1(2), 101-105.

Mousouri, E., De Margerie, C., Castellotti, V., Coste, D., & Moore, D. 2001. Le proche et le lointain dans les représentations des langues et de leur apprentissage (No. IKEEBOOKCH-2015-450, pp. 101-131). Aristotle University of Thessaloniki.

Muhuri, P. K., & Preston, S. H. 1991. Effects of family composition on mortality differentials by sex among children in Matlab, Bangladesh. The Population and Development Review, 415-434.

Nelling, E., & Webb, E. 2009. Corporate social responsibility and financial performance: the "virtuous circle" revisited. Review of Quantitative finance and accounting, 32, 197-209.

Nguyen, D. D., Fujita, G., Bui-Dang, Q., & Ta, M. C. 2018. Reduced-order observer-based control system for dual-active-bridge DC/DC converter. IEEE Transactions on Industry Applications, 54(4), 3426-3439.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. 2003. Corporate social and financial performance: A meta-analysis. Organization studies, 24(3), 403-441.

Ory, J. F., & Petitjean, J. L. 2014. RSE et performance financière: une approche par la communication des entreprises. La Revue des Sciences de Gestion, (3), 69-78.

Park, B. J., Lee, H. R., Shim, J. Y., Lee, J. H., Jung, D. H., & Lee, Y. J. 2010. Association between resting heart rate and arterial stiffness in Korean adults. Archives of cardiovascular diseases, 103(4), 246-252.

Peloza, J. 2009. The challenge of measuring financial impacts from investments in corporate social performance. Journal of management, 35(6), 1518-1541.

Pesqueux, Y. 2017. Robert E. Freeman et la théorie des parties prenantes en question (Doctoral dissertation, Université de Paris Dauphine).

Pignati, M., Popovic, M., Barreto, S., Cherkaoui, R., Flores, G. D., Le Boudec, J. Y., ... & Zanni, L. 2015, February. Real-time state estimation of the EPFL-campus medium-voltage grid by using PMUs. In 2015 IEEE Power & Energy Society Innovative Smart Grid Technologies Conference (ISGT) (pp. 1-5). IEEE.

Preston, L. E., & O'bannon, D. P. 1997. The corporate social-financial performance relationship: A typology and analysis. Business & Society, 36(4), 419-429.

Qureshi, M. A., Kirkerud, S., Theresa, K., & Ahsan, T. 2020. The impact of sustainability (environmental, social, and governance) disclosure and board diversity on firm value: The moderating role of industry sensitivity. Business Strategy and the Environment, 29(3), 1199-1214.

Rabinow, P., & Rose, N. 2006. Biopower today. BioSocieties, 1(2), 195-217.

Roelkens, G., Liu, L., Liang, D., Jones, R., Fang, A., Koch, B., & Bowers, J. 2010. III-V/silicon photonics for on-chip and intra-chip optical interconnects. Laser & Photonics Reviews, 4(6), 751-779.

Rossouw, J. E., Prentice, R. L., Manson, J. E., Wu, L., Barad, D., Barnabei, V. M., ... & Stefanick, M. L. 2007. Postmenopausal hormone therapy and risk of cardiovascular disease by age and years since menopause. Jama, 297(13), 1465-1477.

Salgado, M. 2013. La performance: une dimension fondamentale pour l'évaluation des entreprises et des organisations.

Sánchez-Andújar, M., Presedo, S., Yáñez-Vilar, S., Castro-García, S., Shamir, J., & Señarís-Rodríguez, M. A. 2010. Characterization of the order–disorder dielectric transition in the hybrid organic– inorganic perovskite-like formate Mn (HCOO) 3 [(CH3) 2NH2]. Inorganic chemistry, 49(4), 1510-1516.

Saulquin, J. Y., & Schier, G. 2007. Responsabilité sociale des entreprises et performance: complémentarité ou substituabilité? La Revue des Sciences de Gestion, (1), 57-65.

Smith, F. W., Ealing, P. M., Hawkesford, M. J., & Clarkson, D. T. 1995. Plant members of a family of sulfate transporters reveal functional subtypes. Proceedings of the National Academy of Sciences, 92(20), 9373-9377.

Smith, J. S. C., Chin, E. C. L., Shu, H., Smith, O. S., Wall, S. J., Senior, M. L., ... & Ziegle, J. 1997. An evaluation of the utility of SSR loci as molecular markers in maize (Zea mays L.): comparisons with data from RFLPs and pedigree. Theoretical and Applied Genetics, 95, 163-173.

Stamatatos, E., Daelemans, W., Verhoeven, B., Potthast, M., Stein, B., Juola, P., ... & Barrón-Cedeño, A. 2014. Overview of the author identification task at PAN 2014. In CLEF 2014 Evaluation Labs and Workshop Working Notes Papers, Sheffield, UK, 2014 (pp. 1-21).

Supiot, A., & Baamonde, M. E. C. 2016. Au-delà de l'emploi (Vol. 2). Paris: Flammarion.

Tebini, H. 2013. Relation entre la performance financière et la performance sociale/environnementale: une analyse critique.

Tirilly, M. 2018. La responsabilité sociale des entreprises dans le secteur public: le cas des entreprises publiques.

Vance, E. F. 1975. Shielding effectiveness of braided-wire shields. IEEE Transactions on Electromagnetic Compatibility, (2), 71-77.

Verschoor, C. C., & Murphy, E. 2002. The financial performance of large US firms and those with global prominence: How do the best corporate citizens rate? Available at SSRN 333863.

Waddock, S. A., & Graves, S. B. 1997. Quality of management and quality of stakeholder relations: Are they synonymous? Business & society, 36(3), 250-279.

Wang, H., & Qian, C. 2011. Corporate philanthropy and corporate financial performance: The roles of stakeholder response and political access. Academy of Management journal, 54(6), 1159-1181.

Werler, M., Cancino, L. R., Schießl, R., Maas, U., Schulz, C., & Fikri, M. 2015. Ignition delay times of diethyl ether measured in a high-pressure shock tube and a rapid compression machine. Proceedings of the Combustion Institute, 35(1), 259-266.

Wood, D. J., & Jones, R. E. 1995. Stakeholder mismatching: A theoretical problem in empirical research on corporate social performance. The International Journal of Organizational Analysis, 3(3), 229-267.

Zahra, S. A. 2008. Being entrepreneurial and market driven: implications for company performance. Journal of strategy and management, 1(2), 125-142.

Zu, T., Gibbens, B., Doty, N. S., Gomes-Pereira, M., Huguet, A., Stone, M. D., ... & Ranum, L. P. 2011. Non-ATG–initiated translation directed by microsatellite expansions. Proceedings of the National Academy of Sciences