

**THE CSR IN PSI 20 COMPANIES AND ITS IMPACT IN
THEIR FINANCIAL PERFORMANCE**

Sara Sofia Guerreiro Marques Rebelo Trindade

Dissertation submitted as partial requirement for the conferral of

Master in Management

Supervisor:

Álvaro Augusto da Rosa, Assistant Professor, ISCTE Business School, Marketing, Operations
and General Management Department

September 2016

ACKNOWLEDGEMENTS

I would like to start by thanking my family, for their unconditional love and support.

To Marco, for always guiding and helping me to achieve my goals.

I would also like to thank my closest friends, for making this journey with me, being constantly motivating me with their positivism.

Lastly, I would like to demonstrate my appreciation to my supervisor, Prof. Álvaro Rosa, for his guidance and dedication during this process.

ABSTRACT

The increasing interest in understanding how organizations disclose and report sustainability and its impact on their financial performance constitute the background for this research.

In order to achieve the proposed goals, a qualitative and quantitative investigation was conducted for the years of 2014 and 2015, considering a sample of 18 Portuguese companies listed at Euro next Lisbon, specifically the ones quoted at the PSI 20 stock market index at the data of the analysis.

A qualitative approach was conducted in order to comprehend how PSI 20 companies communicate with their stakeholders, based on the analysis of their sustainability and annual reports. This approach intended to answer the research question *What is the level of importance PSI 20 companies' give to Corporate Social Responsibility (CSR) reporting?*

A quantitative approach was used to evaluate the PSI 20 companies Corporate Social Performance (CSP) and after that, understand if it can be associated with their Corporate Financial Performance (CFP). The CSP for each year and company was measured by a CS Index, constructed based on the level of concordance between the PSI 20 companies sustainable information and Global Reporting Initiative (GRI) G4 Specific Indicators.

The findings suggest that, in general, PSI 20 companies' do not give the importance they should to CSR reporting. This idea is reinforced due to the positive impact of CSP on ROS, which demonstrates customers might seem to reward sustainable companies.

Keywords: CSR; Financial Performance; PSI 20 Index; GRI G4 Guidelines.

JEL Classification System:

M10 – Business Administration: General

M14 – Business Administration: Social Responsibility

RESUMO

O crescente interesse em avaliar como as empresas divulgam e reportam sustentabilidade, bem como o impacto desta na performance financeira, constituem as razões da presente investigação.

De modo a atingir os objectivos propostos, foi aplicada uma pesquisa qualitativa e quantitativa para os anos de 2014 e 2015, considerando uma amostra de 18 empresas portuguesas cotadas na Bolsa de Valores de Lisboa, mais concretamente as que estavam listadas no índice de mercado PSI 20 à data da análise.

Foi conduzida uma abordagem qualitativa por forma a perceber como as componentes da amostra comunicam com os seus *stakeholders*, de acordo com uma análise aos seus relatórios anuais e de sustentabilidade. Esta fase da investigação visa responder à seguinte questão: Qual é o nível de importância que as empresas do PSI 20 dão à actividade de reporte de dados relativos à sua Responsabilidade Social Corporativa (RSC)?

Foi adicionalmente utilizada uma abordagem quantitativa, por forma a avaliar a Performance Social das empresas e perceber se é possível associá-la com a Performance Financeira. A performance social para cada empresa e ano foi medida por um Índice de Sustentabilidade, construído com base no nível de concordância entre a informação divulgada pelas empresas do PSI 20 e os *guidelines* do *GRI G4*.

Os resultados sugerem que, no geral, as empresas do PSI 20 não dão a importância que deviam ao reporte de CSR. Esta tese é reforçada pelo impacto positivo da performance social no Retorno sobre as Vendas, o que demonstra que os clientes parecem reconhecer e premiar empresas sustentáveis.

Palavras-Chave: CSR, Financial Performance, PSI 20 Index, GRI G4 Guidelines.

JEL Classification System:

M10 – Business Administration: General

M14 – Business Administration: Social Responsibility

TABLE OF CONTENTS

| | |
|---|-----|
| ACKNOWLEDGEMENTS | i |
| ABSTRACT | ii |
| RESUMO | iii |
| LIST OF TABLES | vii |
| LIST OF FIGURES | ix |
| LIST OF ABBREVIATIONS | x |
| CHAPTER 1 - INTRODUCTION | 1 |
| 1.1. Research Objectives | 3 |
| 1.2. Research Questions | 3 |
| 1.3. Structure of the Dissertation | 4 |
| CHAPTER 2 - LITERATURE REVIEW | 5 |
| 2.1. Business Strategy | 5 |
| 2.1.1. Basis of Strategy..... | 5 |
| 2.1.2. Strategic Planning..... | 6 |
| 2.1.3 CSR as part of strategy management..... | 7 |
| 2.2. Business and Society Relationship | 8 |
| 2.2.1. Determinants of the relation between business and society..... | 9 |
| 2.2.2. Forces that shape the relation between business and society..... | 10 |
| 2.3. CSR in theory | 12 |
| 2.3.1. CSR Definitions | 12 |
| 2.3.2. CSR Conceptual Frameworks..... | 14 |
| 2.4. CSR in practice | 20 |
| 2.4.1. Rules for Information Disclosure..... | 20 |
| 2.4.2. Sustainability Measurement Approaches | 21 |

| | | |
|---|---|-----------|
| 2.5. | Relating Social and Financial Performance | 36 |
| 2.5.1. | Capital-based theory of performance | 36 |
| 2.5.2. | Relationship between Corporate Social and Financial Performance | 37 |
| CHAPTER 3 - METHODOLOGY | | 41 |
| 3.1. Research Objectives and Questions | | 41 |
| 3.2. Conceptual Models and Research Hypothesis | | 42 |
| 3.3. Sampling Process and Period of Analysis | | 43 |
| 3.4. First research question's methodological approach | | 45 |
| 3.4.1. | Types of data and data treatment | 45 |
| 3.5. Second research question's methodological approach | | 48 |
| 3.5.1. | Types of data and data treatment | 48 |
| CHAPTER 4 – RESULTS | | 51 |
| 4.1. First research question's results | | 51 |
| 4.1. 1. | PSI 20 Index Overview | 52 |
| 4.1. 2. | PSI 20 companies' reporting and disclosure practices and CS Indexes | 53 |
| 4.2. Second research question's results | | 56 |
| 4.2.1. | CFP indicators | 56 |
| 4.2.2. | Descriptive Statistics | 58 |
| 4.2.3. | Study Model Results | 59 |
| 4.3. Discussion of the results | | 65 |
| CHAPTER 5 - CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH | | 69 |
| 5.1. Major Conclusions | | 69 |
| 5.2. Managerial Implications | | 70 |
| 5.3. Limitations of the study | | 71 |
| 5.4. Future Research | | 71 |
| CHAPTER 6 – REFERENCES | | 73 |

LIST OF TABLES

| | |
|--|----|
| Table 1. Determinants of the relationship between business and society..... | 9 |
| Table 2. Elements of businesses' new DNA..... | 16 |
| Table 3. Scopes for Economic, Social, and Ecological Responsibility..... | 19 |
| Table 4. G4's General and Specific Standards | 22 |
| Table 5. Economic and Environmental Category and respective aspects | 23 |
| Table 6. Social Category and its aspects | 24 |
| Table 7. Economic Category' Indicators and respective codes | 25 |
| Table 8. Environmental Category Indicators and respective codes (part I) | 26 |
| Table 9. Environmental Category Indicators and respective codes (part II) | 27 |
| Table 10. Social Category Indicators and respective codes (part I)..... | 28 |
| Table 11. Social Category Indicators and respective codes (part II)..... | 29 |
| Table 12. Social Category Indicators and respective codes (part III) | 30 |
| Table 13. Social Category Indicators and respective codes (part IV) | 31 |
| Table 14. Corporate Social Standards | 33 |
| Table 15. FTSE4 Good Indexes Family | 34 |
| Table 16. Capital-based theory of performance | 36 |
| Table 17. Examples of relationship typologies between CSP and CFP | 39 |
| Table 18. PSI 20 Index' Components..... | 44 |
| Table 19. GRI G4 Specific Indicators | 45 |
| Table 20. Scale to measure the level of concordance between PSI 20 companies' sustainable information and GRI G4 Specific Indicators | 46 |
| Table 21. PSI 20 components' availability of annual sustainability reports for 2014-2015 | 47 |
| Table 22. Financial Performance' measures for the PSI 20 companies | 48 |
| Table 23. PSI 20 Companies weight on the Index and Sector of Activity | 52 |

| | |
|--|----|
| Table 24. CSP indicators for 2014 and 2015 | 53 |
| Table 25. CFP indicators of sample for the period of analysis | 56 |
| Table 26. Descriptive Statistics of the dependent and independent variables for 2014-2015 .. | 58 |
| Table 27. Pearson Correlations between the independent variables | 60 |
| Table 28. Linear Regression Model for EN Index and ROA | 62 |
| Table 29. Linear Regression Model for SO Index and ROA..... | 62 |
| Table 30. Linear Regression Model for EN Index and ROE..... | 63 |
| Table 31. Linear Regression Model for SO Index and ROE | 63 |
| Table 32. Linear Regression Model for EN Index and ROS | 64 |
| Table 33. Linear Regression Model for SO Index and ROS | 64 |

LIST OF FIGURES

| | |
|---|----|
| Figure 1. Strategic Management Process..... | 7 |
| Figure 2. Forces that shape the relation between business and society | 11 |
| Figure 3. Carroll’s Pyramid of Corporate Social Responsibility | 14 |
| Figure 4. Elements of businesses’ new DNA | 15 |
| Figure 5. Principles of Systemic CSR | 17 |
| Figure 6. Triple Corporate Responsibility Triangle | 18 |
| Figure 7. Functions of each Corporate SRT | 21 |
| Figure 8. Examples of corporate SRTs..... | 35 |
| Figure 9. U-Shaped Relationship between Social and Financial Performance..... | 38 |

LIST OF ABBREVIATIONS

CSR – Corporate Social Responsibility

CSP – Corporate Social Performance

CFP – Corporate Financial Performance

Corporate SRTs - Corporate Sustainability Reporting Tools

GRI – Global Reporting Initiative

SD – Sustainable Development

DJSI - Dow Jones Sustainability Index

SRI – Socially Responsible Investment

EI - Ethibel Index

GCI - Global Challenges Index

CS Index – Corporate Sustainability Index

EN Index – Environmental Index

EC Index – Economic Index

SO Index – Social Index

ROA - Return on Assets

ROE - Return on Equity

ROS – Return on Sales

CHAPTER 1 - INTRODUCTION

Societies and organizations are paying more attention to the subject of Corporate Social Responsibility (CSR), adopting new attitudes and responsible behaviors along with the economic concerns (Ferraz and Vázquez, 2016). This affirmation can be explained, in part, by the increasing stakeholders demanding for greater transparency on both environmental and social issues (Siew, 2015).

In fact, if in the past decades the only formal obligation of a business was to be profitable, nowadays internal and external agents exert pressure for the companies to disclose non-financial data, so they can make informed decisions (Bonsón and Bednárová, 2014). Consequently, organizations are making a huge mistake if they ignore their stakeholder's beliefs and thereby be only profit-oriented (Conde *et al.* 2011).

Because of this, CSR must be nowadays present in any business strategy and should not be seen as “a cost, obstacle or merely philanthropic action but in turn as a source of opportunities and competitive advantage” (Cesar, 2014). Furthermore, research by Branco and Rodrigues (2008) provided evidence that the main factors influencing Social Responsibility disclosure are the presentation of a sustainable image as a way to legitimate the conduct and increase reputation near the interest groups. For these reasons, the present investigation will be conducted under the assumption that CSR is a part of strategy management.

At the same time, study the relationship between social and financial performance is not a new trend. In fact, an empirical study conducted in 2012 found 198 articles between 1996 and 2010 investigating the relationship between Corporate Social Performance (CSP) and Corporate Financial Performance (CFP) (Boaventura *et al.* 2012). Along these lines, countries as Korea (Oh and Park, 2015), Spain (Madorran and Garcia, 2014), Indonesia (Santoso and Feliana, 2014), Japan (Chiang *et al.* 2015), United States (Cornett *et al.* 2016) and Nigeria (Nwidobie, 2014) were subject to this type of investigation, what confirms that study if CSP and CFP have a positive, negative or neutral relationship is an interesting topic among scholars and practitioners.

Regarding the Portuguese reality, in 2012 was conducted a study using a sample of 2222 Portuguese Small and Medium Enterprises (SMEs) that suggests a positive relation between those companies' social performance and their financial results (Fonseca and Ferro, 2012). It was also conducted a study by Afonso *et al.* (2012) using the PSI 20 Index' companies for the period between 2005 and 2009, which provided evidence that exists a moderate relationship between CSP and Return on Sales (ROS).

As the main purpose of the present research is to understand the Portuguese panorama in terms of CSR, the investigation requires a diversity of sectors and representativeness of the companies under examination. Consequently, the sample under investigation will be constituted by the Portuguese companies quoted at the Portuguese reference Index - PSI 20 Stock Exchange Index at the data of the dissertation.

Previous studies confirm Portugal as a stakeholder-oriented country, which means companies have the habit to disclose CSR information (Fernandez-Feijoo *et al.* 2014). For this purpose, it will be tested not only if the PSI 20' companies have developed the necessary efforts to be committed to sustainability but also their ability to aggregate both profit and social goals, for the years of 2014 and 2015.

Along these lines, the present investigation will be conducted under a qualitative and quantitative approach. The first one aims to describe the PSI 20 components' sustainability disclosure and reporting strategy, in order to be possible a comparative analysis. The second approach aims to (1) Quantify the PSI 20 companies' social practices using a self-elaborated Corporate Sustainability Index (CS Index) based on Global Reporting Initiative (GRI) G4 guidelines and, (2) Quantify the PSI 20 companies' financial performance based on ROA, ROE, and ROS. The outcomes will serve as inputs to test the validity of the hypothesis, *"There is a linear and positive effect of the Corporate Social Responsibility Performance on Corporate Financial Performance"*.

During the investigation, the terms CSR and Sustainability are assumed as equal, following the approaches gave by Simionescu (2015), Williams (2014), Mazutis and Slawinski (2014) and Cesar (2014), which are described in detail in the literature review.

1.1. Research Objectives

The main goals of the study are summarized below.

- 1) Provide a better knowledge about the social panorama in Portugal in terms of the disclosure and reporting practices applied by the biggest companies in the country, listed at the PSI 20 Index;
- 2) Measure the PSI 20 companies' CSP by the construction of a CS Index, based on the level of compliance of their CSR information with the GRI G4 guidelines;
- 3) Verify if the social performance of the PSI 20 companies can be correlated or not with their financial performance.

1.2. Research Questions

In order to achieve the research objectives, two questions must be addressed:

- 1) What is the level of importance PSI 20 companies give to CSR reporting and disclosure?
- 2) Does the CSP of the PSI 20 companies' impacts positively their CFP?

The first two objectives will be attained by answering to the first research question, and the third objective of the investigation will be achieved by addressing the second research question.

1.3. Structure of the Dissertation

The present dissertation is organized in five chapters.

Chapter 1 asserts the introduction to the investigation and summarizes the objectives to be accomplished answering the research questions.

Chapter 2 aims to demonstrate the literature review associated with (1) Importance of strategy and CSR as a part of strategy management; (2) Relationship between business and society; (3) Conceptual frameworks and definitions regarding CSR and (4) Types of the relationship between CSP and CFP.

Chapter 3 presents in detail the methodological approach for the empirical investigation. It comprises the research objectives and questions; conceptual models adopted; research hypothesis; sampling process, and data collection and treatment.

Chapter 4 refers to the presentation and discussion of the results regarding the research questions.

Finally, **Chapter 5** demonstrates the main conclusions of the dissertation, not only in terms of the achievement of the objectives initially proposed but also concerning the contributions for Managers and Investors. It is equally presented in this chapter, the limitations of the investigation as well as suggestions for future research.

CHAPTER 2 - LITERATURE REVIEW

The present chapter is divided into the following sections: (1) Business strategy and CSR as a part of strategy management; (2) Business and society relationship; (3) CSR in theory; (4) CSR in practice and (5) Relating Social and Financial Performance.

We will begin by discussing the topic of business strategy once it embodies the notion of how organizations should compete in the marketplace and it is about the top management realization where the value of social responsibility is deeply associated.

2.1. Business Strategy

The business strategy is a fundamental part of any organization that strives to survive in the marketplace. Haines and McCoy (1995: 7; 8) go further by arguing organizations are seen as functioning systems that have two main goals 1) Develop a strategic plan and document and 2) Ensure and sustain its successful implementation. In addition, any business must recognize and embrace the ethical limits of its performance in the marketplace. Because of this, it is impossible not to think of strategy when approaching the subject of CSR.

This section will focus on define strategy and understand how the strategic management process functions. The final part of the section forms the background assuming CSR as a part of strategy management and consequent implications.

2.1.1. Basis of Strategy

According to one of the most known definitions of strategy, it encompasses “the determination of the basic long-term goals and objectives of an enterprise and the adoption of courses of action and the allocation of resources necessary for carrying out these goals” (Chandler, 1962:13). In other words, the goals and objectives are settled during the current reality and correspond to the desired future that the company wants to achieve, and are the basis for strategic formulation (Hitt *et al.*, 2005: 81).

2.1.2. Strategic Planning

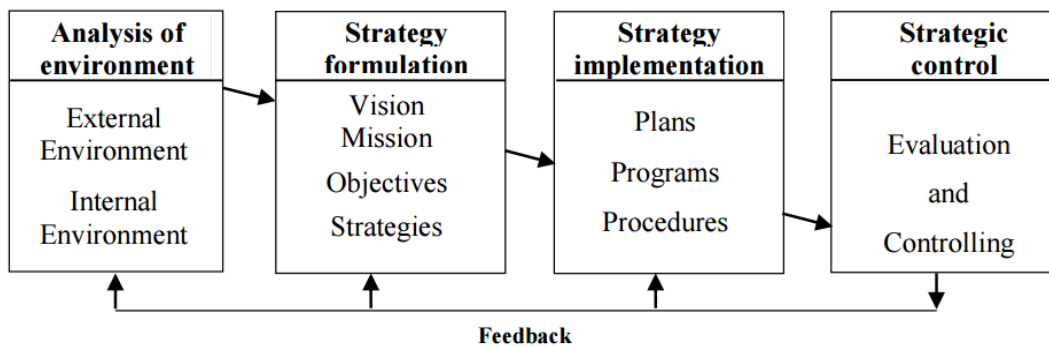
Kohl (2012) defends strategic planning is “fundamental, future-focused, concerned with long-term impact, guiding and directional along with financial and personnel forecasts”.

The process of strategic planning starts with the definition of the company’s core values, mission, and vision and encompasses the courses of action to achieve them (Germain, 2013). The author states the critical success factors of a strategic plan are not only the capacity of the organization to be action-oriented but also the decisions of where to allocate and reallocate its resources.

A good operationalization of the strategic plan occurs by a correct strategic management throughout the process. First of all, useful strategic tools must be applied to examine the present situation of the company in different perspectives, depending on the industry in which it operates (Pettigrew *et al.* 2002: 37-39). Therefore, some of the most important tools discussed and used over the past decades are SWOT (the 1960s); Porter’s Five Forces (the 1980s); Value Chain Analysis (the 1980s); Scenario Analysis (the 1970s); Economic Value Added (the 1990s); Capability Analysis (the 1990s) and Strategic Option Analysis (the 1990s). This set of frameworks helps the companies to understand better their position in the industry, market outcomes and configuration of activities, which will help them to evaluate the value chains and drivers that are important in building corporate strategy (Porter, 1991). At the same hand, the correct management of these tools, allows the companies to sustain their Competitive Advantage (Pettigrew *et al.* 2002: 437). The final stage of the management process is testing the validity of the strategy, among changes in the enterprise and environment (Zenovia and Borza, 2013).

Papulova and Gazova (2015) define the strategic management process in four steps and summarize what was explained before.

Figure 1. Strategic Management Process



Source: Papulova & Gazova (2012)

2.1.3 CSR as part of strategy management

Marcus (1993: 27) refers that: “Matching external opportunities and threats with internal capabilities is a central part of strategy, but it is not all there is to strategy. In developing an overall strategy, the corporation must acknowledge its noneconomic responsibilities to society.”

McElroy and Engelen (2012) argue that a company’s strategy should simultaneously pursue for a) profit maximization and b) recognizing all the duties and obligations under the stakeholders, and the meeting of their needs.

Also, Radhakrishnan *et al.* (2014) argue that companies that use CSR as part of strategy are focusing their efforts on implicit self-benefits, such as a) Reinforce company reputation and image; b) Increase competitive advantage; c) Cost reduction and sales improvement and d) Employee engagement.

Martinuzzi and Krumay (2013) defend that, in order to a company have CSR as part of its strategy, it must incorporate social concerns in the business overall strategic plan. The authors also state the total commitment of the employees to achieve the strategic CSR goals is a fundamental part of the process.

To reinforce the idea that CSR can conduct to strategic advantage, companies must have the capacity to adopt specific CSR policies in order to create value and sustain their competitive advantage in an uncertain environment (Falkenberg and Brunsael, 2011).

2. 2. Business and Society Relationship

Nowadays it is impossible not to associate business and society since companies' activities have implications for the surrounding environment, which must be considered by the decision makers.

Along these lines, this section explores the drivers of the relation between business and society and the types of organizational responsibilities.

2.2.1. Determinants of the relation between business and society

Pettigrew *et al.* (2002) explain on their book, *Handbook of Strategy and Management*, the bases that shape the relationship between business and society. The authors argue the existence of four spheres that influence the behavior of the firms concerning the surrounding environment.

Table 1. Determinants of the relationship between business and society

| <i>Sphere</i> | <i>Concern of Business-Society Relation</i> | <i>Main Streams</i> |
|---|--|--|
| a) Organizing Principles | Why should firms be good corporate citizens? | Business Ethics Corporate Social Responsibility Ideology/Attitudes/Values |
| b) Organizational Processes | How do firms manage their interactions with the society? | Corporate Social Performance Stakeholder Management |
| c) Social Issues | What are the social issues to address? | Minorities Women Community International Consumers Employees Environment Stockholders |
| d) Business-Government Relations | Activities directed at business by Government and vise-verse | Government Action Business Political Activity |

Source: Adapted from Pettigrew *et al.* (2002)

The next topics provide a brief description of the spheres between business and society, in order to summarize **table 1**.

a) Organizing Principles

This sphere builds the foundation for the existence of interactions between businesses and societies. Frameworks as business ethics and firms' values and attitudes are addressed in this field;

b) Organizational Processes

This domain respects to how firms organize themselves to build synergies with the society. The correct management of stakeholders is crucial at this stage;

c) Social Issues

The main point in this field is to understand the centers of attention for both businesses and societies. Minorities, woman and consumers are examples of social concerns;

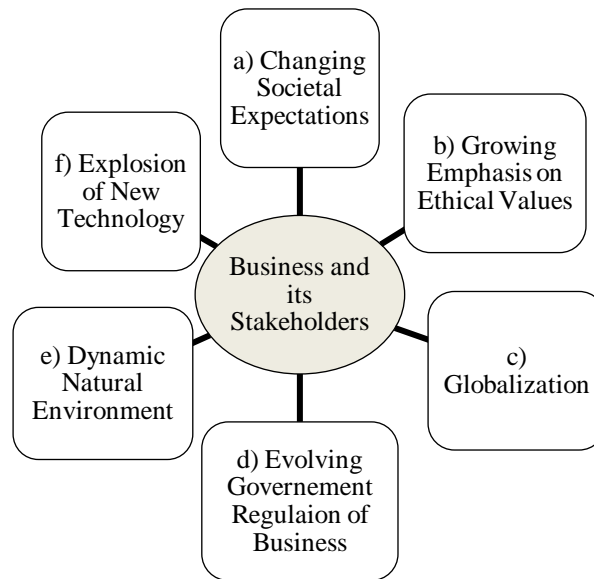
d) Business-Government Relations

Governments not only have the function to regulate but are also the only stakeholder that has "direct and legitimate coercive power over the corporation" (Pettigrew *et al.* 2002). Henceforward, the authors decided to include them in a separate category.

2.2.2. Forces that shape the relation between business and society

Albrecht (2000) makes reference to six forces that shape the relationship between business and society. Each force should be considered as a dynamic and powerful drive if we want to address the expectations of all the company's stakeholders.

Figure 2. Forces that shape the relation between business and society



Source: Adapted from Albrecht (2000)

The next topics provide a brief description of the forces referred in **figure 2**.

a) Changing Societal Expectations

Nowadays, people expect businesses to be more responsible and also capable of managing their social, legal and economic duties;

b) Growing Emphasis on Ethical Values

People also expect the managers to apply ethical principles when making business decisions;

c) Globalization

The challenge is to have a business capable of answering effectively to different global questions, in order to become a better global citizen;

d) Evolving Government Regulation of Business

Government regulations became more aware of businesses, which lead firms to understand the importance of actively participate in the political process;

e) Dynamic Natural Environment

The state of Earth´s resources (renewable and nonrenewable) and the changing attitudes about the natural ecosystem, strongly impact business-society relationship;

f) Explosion of New Technology

In recent years, technology had produced dramatic changes in businesses, and so new challenges have arisen for managers, like, for example, how to manage the ethical implications of technology usage.

2.3. CSR in theory

Corporate Social Responsibility (CSR) is the science that studies the interactions between businesses and society and has been under discussion since the 1960s, gaining importance near academics and practitioners over time (Wang *et al.* 2016).

The next topics explore ways to define CSR, as well as three conceptual frameworks that help to understand the scope of CSR according to different perspectives.

2.3.1. CSR Definitions

CSR definitions vary in agreement to different groups, depending on their distinct interests and purposes. Therefore, is difficult to have an accepted definition of CSR (Isa, 2012).

As reported by Preston and Post (1975), the limits of CSR are the issues a company is obliged to respond to. More specifically, they argue that “the business should deal with the social issues that are impacted by the normal operating activities of the company”.

Other interpretation of CSR argues it corresponds to “Societal expectations of corporate behavior; a behavior that is alleged by a stakeholder, to be expected by society or morally required, and is therefore justifiably demanded of a business” (Pettigrew *et al.* 2002: 374).

Other authors suggest CSR is connected with sustainability, arguing that it is impossible to dissociate these two concepts.

Indeed, Visser (2010) makes a clear association between CSR and Sustainability, arguing that the first one is the journey (actions, solutions, and management) and the second one is the destination (vision, strategy, goals and challenges).

Research by Brundtland (1987) provided one of the most commonly known definitions of Sustainable Development (SD): “... development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Based on this sentence, it is possible to conclude that the matters of SD are the establishment of long-term goals.

Simionescu (2015) defends the long-term thinking can only be achievable if exists a close cooperation between companies and societies, and not only by firm's contributions, such as philanthropy and charity. To support his argument, the author states the dimensions of SD - *Economic, Social, Cultural and Environmental Sustainability* - must be applied with equal importance at companies' CSR programs.

Mazutis and Slawinski (2014) discovered in their study, "*Reconnecting Business and Society: Perceptions of Authenticity in CSR*", that only authentic CSR actions are perceived by the stakeholders, and consequently able to enhance the relationship between business and society in the long-term.

Research by Kuo *et al.* (2016) demonstrates that, when companies make reference to terms as CSR, Sustainability, and Corporate Responsibility, they do it without significant differences among them.

Cesar (2014) argues that some companies use the terms sustainability or sustainable development to express their efforts on social responsibility.

Along these lines, it will be assumed during the investigation CSR and sustainability as concepts of equal value.

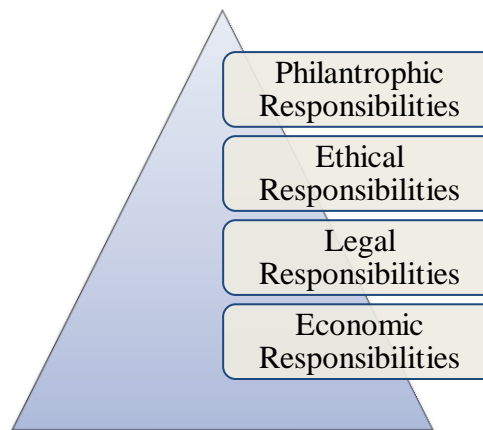
2.3.2. CSR Conceptual Frameworks

CSR, in theory, corresponds not only to the different definitions of the concept but also to important frameworks in order to understand how it must be approached.

This investigation provides three different theoretical frameworks regarding CSR. Therefore, will be analyzed (1) Carroll's Pyramid of Corporate Social Responsibility (1991); (2) Visser's Systemic CSR (2010), and (3) Schuz's Triple Corporate Responsibility (2012).

2.3.2.1. Carroll's Pyramid of Corporate Social Responsibility

Figure 3. Carroll's Pyramid of Corporate Social Responsibility



Source: Adapted from Carroll (1991)

The author argues that CSR encompasses four different ranges of responsibilities - *Economic*, *Legal*, *Ethical*, and *Philanthropic*.

Economic responsibilities make reference to the maximization of earnings per share and profits, and also the existence of a strong competitive position. These goals are approached by the author as the primary function of any organization.

Legal responsibilities are related to the ability of the firms to act according to government rules and laws. In order to achieve this, they must, for example, comply with their legal obligations and sell products/services with minimum legal requirements. Thus, economic and legal obligations are seen as required demands to operate in any industry.

Ethical Responsibilities correspond to behaviors expected by the stakeholders, which should be “right, just and fair” (Caroll, 2011). Along these lines, firms should, for example, not compromise ethics when achieving their goals, and act according to societal mores and ethical norms.

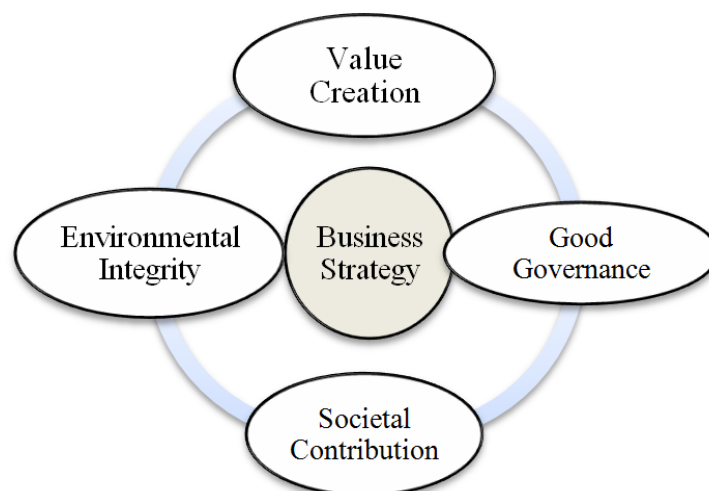
Philanthropic responsibilities demonstrate the society’s desire for companies to be “good corporate citizens” (Caroll, 1991). In this case, enterprises must embrace specific actions, such as donations and employee volunteering, with the objective to improve the community’s welfare.

2.3.2.2. Visser’s Systemic CSR

The second approach was proposed by Visser (2010) and defends that the current economic, ethics and governance system has failed, in the way companies do not understand the true impact of their activities in the society and environment. As follows, the author argues that is required the system to embrace a new age, which is called the “Age of Responsibility”.

First of all, Visser (2010) described the elements that must be present in any business DNA, revealed in the next figure.

Figure 4. Elements of businesses’ new DNA



Source: Adapted from Visser (2010)

The next table details the implications of each one of the Businesses’ DNA elements, and how companies should pursue them.

Table 2. Elements of businesses’ new DNA

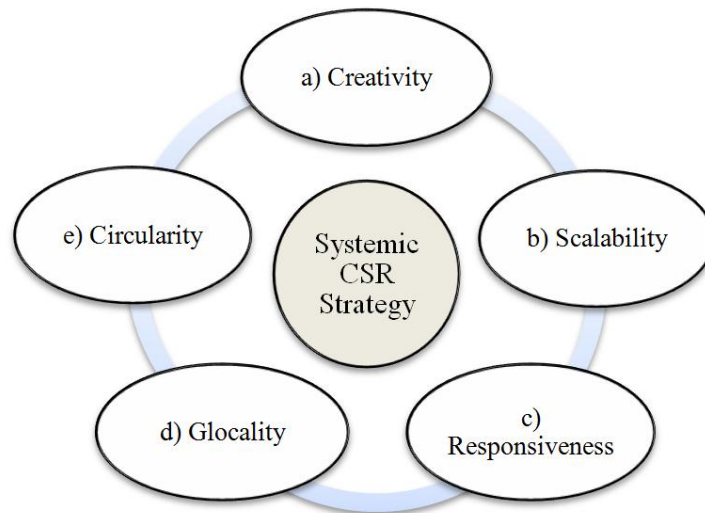
| DNA Element | Strategic Goal | Key Indicators |
|--------------------------------|-------------------------------|--|
| Value Creation | Economic Development | - Capital Investment (Human, Financial, Social, Natural, and Manufacturing) - Sustainable & Responsible Products - Inclusive Business |
| Good Governance | Institutional Effectiveness | - Responsible & Sustainable Leadership - Transparency - Ethical Practices |
| Societal Contribution | Stakeholder Orientation | - Philanthropy - Fair Labor Practices (Health & Safety, Working Conditions, Employee Rights) - Supply Chain Integrity |
| Environmental Integrity | Sustainable Ecosystems | - Ecosystem Protection (Biodiversity Conservation) - Renewable Resources (Prevent Climate change and use renewable energies and materials) - Zero Waste Production |

Source: Adapted from Visser (2010)

A business model in the “Age of Responsibility” must be settled at these four pillars. A brief observation to the above table allows concluding the importance given by the author to responsibility and sustainability, once these concepts are represented in every business DNA element. Consequently, CSR and sustainability must be the basis of the purpose of any business.

Secondly, Visser (2010) presented the insights to build a Systemic CSR approach. Such strategy is required to embody five principles, below described.

Figure 5. Principles of Systemic CSR



Source: Adapted from Visser (2010)

The five pillars can be summarized the following way:

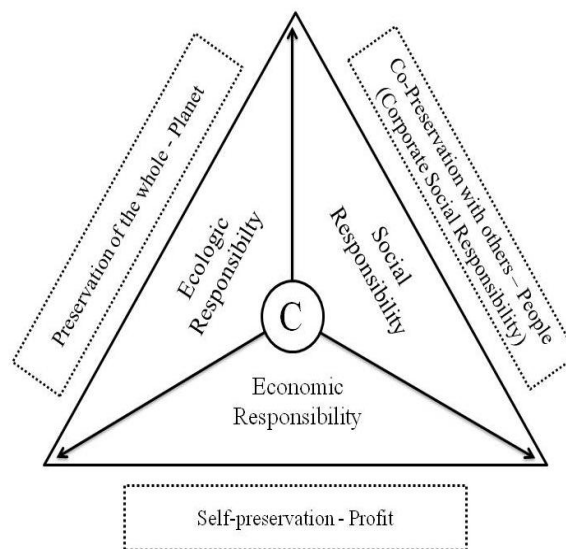
- a) **Creativity:** Businesses must be innovative in searching for new ways to solve societal and environmental issues;
- b) **Scalability:** Responsible projects must match the scale of real and urgent problems, such as climate change or poverty;
- c) **Responsiveness:** Visser (2010) underlines the importance of quick response, arguing that it “requires uncomfortable, transformative responsiveness, which questions whether the industry or the business model itself is part of the solution or part of the problem”;
- d) **Glocality:** Basically this concept means the ability of the companies to understand the local demands without compromising their global principles;
- e) **Circularity:** This variable gives the notion that the companies must be able to be constantly recycling in all the business areas. Constant replenishing of employees, by education and training, is an example of circularity.

2.3.2.3. Schuz Triple Corporate Responsibility

The third conceptual framework was proposed by Schuz (2012) and is named *Triple Corporate Responsibility*. This theoretical approach transforms Social Corporate Responsibility in Sustainable Corporate Responsibility. In order to be possible for the companies to have sustainable success, the author argues they should, first of all, focus their responsibilities in three different scopes, which are a) Economic: Being profitable to shareholders; b) Social: Getting along well with all stakeholders and c) Ecologic: Acting sensibly and respectfully towards nature or being.

The author triangulates the different scopes, and for each one provides a definition.

Figure 6. Triple Corporate Responsibility Triangle



Source: Schuz (2012)

In the figure above, the “C” in the middle represents the company, which is at the center of decision about the three responsibility dimensions. It is also important to note that, in this framework, CSR only represents the Social dimension.

The next table addresses the three different scopes of work, depending on the importance given to each dimension.

Table 3. Scopes for Economic, Social and Ecological Responsibility

| | Scopes | | |
|-----------------------------|---|---|--|
| | Short | Mid | Broad |
| Economic Dimension | <i>Self Interest</i> | <i>Company Interest</i> | <i>Common Welfare</i> |
| | - Shareholder Value - Profit Maximization | - Customer Value - Win-Win Orientation | - All Stakeholders Value - Profit-for-all Orientation |
| Social Dimension | <i>Ego-Centric</i> | <i>Anthropo-Centric</i> | <i>Bio-Centric</i> |
| | - Benefit for Company - Internal Stakeholders: Shareholders, Employees, Managers | - Benefit for Mankind - External/Direct Stakeholders: Customers, Suppliers, etc. | - Benefit for all living beings - External/Indirect Stakeholders: Environmentalists, NGOs, etc. |
| Ecological Dimension | <i>Useful-Nature</i> | <i>Regional-Nature</i> | <i>All Nature</i> |
| | - How to use nature as a resource - Act according to Damage-Compensation | - How to retain regional Nature - Act according to Resource-Conservation | - How to tend all living beings - Act according to full Integration into life |

Source: Adapted from Schuz (2012)

It is possible to do some deductions about **table 3**. For example, if a company invests averagely in the Economic Dimension, it means the customer value and win-win orientation are the economic drivers. Following the same logic, the other two dimensions (social and ecological) must be addressed, in order to obtain a profile for the company in terms of the triple corporate responsibility model.

The profile of the company is obtained by understanding the matter of time economic, social and ecological dimensions last or is sustained. According to Schuz (2012), the possibilities are a) Short-term responsibility: Focused on today; b) Mid-term: Focused on tomorrow, and c) Long-term: Focused on the future generations.

The five possible profile options are considered below.

- 1) **Economist Enterprises:** Economic dimension (EN) is bigger than Social (SC) and Ecological dimension (EC): $EN > SC \ \& \ EC$;
- 2) **Pragmatic Enterprises:** $EN = SC = EC$;
- 3) **Real-idealistic Enterprises:** $EN < SC = EC$;
- 4) **Social Enterprises:** $EN < SC > EC$;
- 5) **Ecologic Enterprises:** $EC > SC > EN$.

2.4.CSR in practice

This section is related to CSR disclosure and reporting methodologies, available to guide companies in their sustainable activity. The first sub-section will study important disclosure rules at the European and National level. The second sub-section presents some of the globally most known Frameworks, Standards, Ratings and Indexes used to measure CSR and evaluate Sustainability Reporting.

2.4.1. *Rules for Information Disclosure*

Many companies' activity reports have nowadays included not only financial data but also information related to environmental risks, respect for the human rights, employees' satisfaction and ethical conduct principles (António *et al.* 2012). This tendency is an important contributor to decreasing the information asymmetry between the companies and the stakeholders (Cheng *et al.* 2012).

The next two paragraphs explain that, not only CSR information disclosure is a tendency, but also mandatory for a certain type of companies.

The European case:

Council Directive 2014/102/EU of 7 November 2014 and Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014, issued by the European Commission, state that large public-interest entities, such as listed companies with more than 500 employees, have the obligation to disclose important and convenient non-financial information, such as social, employee and environmental matters.

The European Commission gives freedom to companies to choose the document in which they must publish non-financial data. It can be at the Annual Financial Report or at the Annual Sustainability Report. European Commission also allows the selected organizations to choose which guidelines to adopt when reporting social responsibility¹.

The Portuguese case:

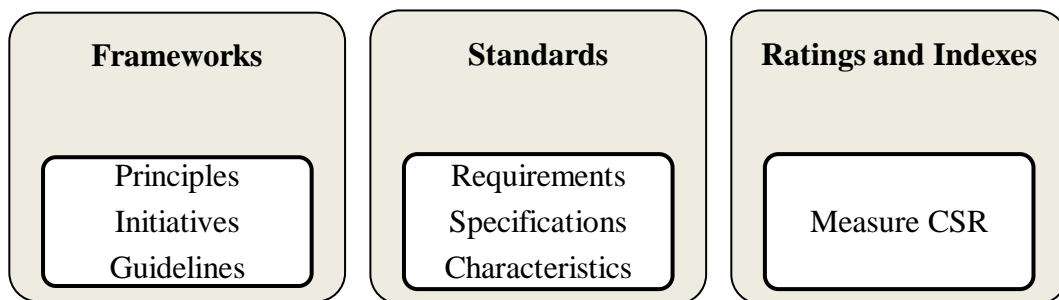
“*Assembleia da República*” issued “*Decreto-Lei n°35/2005*” of 17 February 2005, which states corporations must publish relevant non-financial data, including environmental and human resources issues, in order to be possible an understanding about the businesses evolution and their actual position in the market².

2.4.2. Sustainability Measurement Approaches

This sub-section examines some of the globally most known Frameworks, Standards, Ratings and Indexes used to measure CSR and evaluate Sustainability Reporting.

Siew (2015) divided the Corporate Sustainability Reporting Tools (Corporate SRTs) into three groups: Frameworks, Standards, Ratings, and Indexes.

Figure 7. Functions of each Corporate SRT



Source: Adapted from Siew (2015)

¹ Retrieved from http://ec.europa.eu/finance/company-reporting/non-financial_reporting/index_en.htm#legal-framework on April, 23 2016

² Retrieved from http://www.irm.mj.pt/IRN/sections/irm/legislacao/docs-legislacao/codigo-das-sociedades/downloadFile/file/Codigo_das_Sociedades_Comerciais.pdf?nocache=1339670517.82 on April, 23 2016

The **Frameworks'** group encompasses the principles, initiatives, and guidelines to help in CSR reporting. Siew (2015) makes reference to a) Global Reporting Initiative (GRI); b) SIGMA project; c) DPSIR framework; d) The Global Compact and e) Carbon Disclosure Project (CDP).

a) GRI

GRI is an independent institution established in 1997 that helps companies to understand and communicate the impact of their businesses on the most demanding sustainability issues, such as climate change, human rights, and corruption³.

This framework has settled a global network of partners (experts, reporters, and organizations) that help to build sustainability reporting guidance, named GRI Guidelines. The most up-to-date directives are the GRI G4 Guidelines, which are organized in a₁) General Standards, and a₂) Specific Standards

Table 4. G4's General and Specific Standards

| a₁) General Standards | a₂) Specific Standards |
|---|--|
| <ul style="list-style-type: none"> • Strategy and Analysis • Organizational Profile • Identified Material Aspects and Boundaries • Stakeholder Engagement • Report Profile • Governance • Ethics and Integrity | <ul style="list-style-type: none"> • Disclosures on Management Approach • Indicators |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

³ Retrieved from <http://www.globalreporting.org> on June 30, 2016

a₁) General Standards

These standards make reference to seven important subjects companies must address on their reporting activity, that can be assessed by different indicators. For example, the standard “*Strategy and Analysis*” encompasses two indicators (G4-1 and G4-2). The first one specifies the existence of the company’s CEO statement about the importance and strategy regarding sustainability. The second one points out the key impacts, risks, and opportunities relatively to the sustainability strategy and the different stakeholders. Another example, “*Governance*” can be assessed by 22 indicators (from G4-34 to G4-55), each one representing a topic that it must approach.

The other General Standards mentioned in table five are designed using the same logic, with different indicators to verify each one of them. Thus, General Standards are the starting point for companies that aim to report according to GRI Guidelines.

a₂) Specific Standards

Specific Standards encompass two subjects: disclosure on management approach and indicators. The first group has the objective to guarantee the materiality of the second group. In turn, Indicators represent the guidelines provided to organizations aiming to adopt GRI’s disclosure approach.

The Indicators are aggregated in different aspects, regarding *Economic*, *Environmental*, and *Social* categories.

Table 5 and **table 6** provide an overview of the aspects framed in each one of the three categories.

Table 5. Economic and Environmental Category and respective aspects

| Category | Economic | Environmental | |
|----------------|---------------------------|----------------------------|---|
| <i>Aspects</i> | -Economic Performance | -Materials | -Products and Services |
| | -Market Presence | -Energy | -Compliance |
| | -Indirect Economic Issues | -Water | -Transport |
| | -Procurement Practices | -Biodiversity Emissions | -Overall Supplier Environmental Assessment |
| | | -Effluents and Waste | -Environmental Grievance Mechanisms |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

Economic category provides four aspects, and environmental category can be divided into 10 aspects, from materials, energy and water consumption, to issues regarding preservation of biodiversity and supplier assessment for sustainable practices.

Table 6. Social Category and its aspects

| Category | Social | | | |
|-----------------------|--|---|---|--|
| Sub-categories | Labor Practices and Decent Work | Human Rights | Society | Product Responsibility |
| Aspects | <ul style="list-style-type: none"> - Employment Labour/Management relations -Occupational Health and Safety -Training and Education -Diversity and Equal opportunity -Equal remuneration for woman and men -Supplier assessment for labour practices -Labour practices Grievance mechanisms | <ul style="list-style-type: none"> -Investment -Non-Discrimination -Freedom of association and collective bargaining -Child Labour -Forced or compulsory Labour -Security Practices -Indigenous Rights -Assessment -Supplier Human rights Assessment -Human Rights Grievance mechanisms | <ul style="list-style-type: none"> -Local Communities -Anti-corruption -Public Policy -Anti-competitive behaviour -Compliance -Supplier assessment for impacts on society -Grievance mechanisms for impacts on society | <ul style="list-style-type: none"> -Customer Health and Safety -Product and Service labelling -Marketing communications -Customer Privacy -Compliance |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

The Social category is defined by several aspects, organized into four main topics (1) Labor practices and decent work; (2) Human rights; (3) Society, and (4) Product responsibility.

GRI aims to cover all the possible stakeholder's concerns through the social category aspects.

The next tables detailed the *Economic*, *Environmental* and *Social* aspects, through reference to the GRI G4 specific indicators and respective codes.

Table 7. Economic Category’ Indicators and respective codes

| Economic Category | | Code |
|---------------------------|--|--------|
| Aspect | Indicator | |
| Economic Performance | Direct Economic Value Generated and Distributed | G4-EC1 |
| | Financial Implications and other risks and opportunities for the organization’s activities due to climate change | G4-EC2 |
| | Coverage of the organization’s defined benefit plan obligations | G4-EC3 |
| | Financial Assistance Received from Government | G4-EC4 |
| Market Presence | Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation | G4-EC5 |
| | Proportion of senior management hired from the local community at significant locations of operation | G4-EC6 |
| Indirect Economic Impacts | Development and impact of infrastructure investments and services supported | G4-EC7 |
| | Significant indirect economic impacts, including the extent of impacts | G4-EC8 |
| Procurement Practices | Proportion of spending on local suppliers at significant locations of operation | G4-EC9 |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

Table 8. Environmental Category Indicators and respective codes (part I)

| Environmental Category (part I) | | |
|---------------------------------|---|---------|
| Aspect | Indicator | Code |
| Materials | Materials used by weight and volume | G4-EN1 |
| | Percentage of materials used that are recycled input materials | G4-EN2 |
| Energy | Energy consumption within the organization | G4-EN3 |
| | Energy consumption outside the organization | G4-EN4 |
| | Energy intensity | G4-EN5 |
| | Reduction of energy consumption | G4-EN6 |
| | Reductions in energy requirements of products and services | G4-EN7 |
| Water | Total water withdrawal by source | G4-EN8 |
| | Water sources significantly affected by withdrawal of water | G4-EN9 |
| | Percentage and total volume of water recycled and reused | G4-EN10 |
| Biodiversity | Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas | G4-EN11 |
| | Description of the significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas | G4-EN12 |
| | Habitats protected or restored | G4-EN13 |
| | Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk | G4-EN14 |
| Emissions | Direct greenhouse gas (GHG) emissions (scope 1) | G4-EN15 |
| | Energy indirect greenhouse gas (GHG) emissions (scope 2) | G4-EN16 |
| | Other indirect greenhouse gas (GHG) emissions (scope 3) | G4-EN17 |
| | Greenhouse gas (GHG) emissions intensity | G4-EN18 |
| | Reduction of greenhouse Gas (GHG) emissions | G4-EN19 |
| | Emissions of ozone-depleting substances (ods) | G4-EN20 |
| | Nox, Sox and other significant air emissions | G4-EN21 |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

Table 9. Environmental Category Indicators and respective codes (part II)

| Environmental Category (part II) | | |
|------------------------------------|--|---------|
| Aspect | Indicator | Code |
| Effluents and Waste | Total water discharges by quality and destination | G4-EN22 |
| | Total weight of waste by type and disposal method | G4-EN23 |
| | Total number and volume of significant spills | G4-EN24 |
| | Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel convention, annex I,II,III,IV, and percentage of transported waste shipped internationally | G4-EN25 |
| | Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff | G4-EN26 |
| Products and Services | Extent of impact mitigation of environmental impacts of products and services | G4-EN27 |
| | Percentage of products sold and their packaging materials that are reclaimed by category | G4-EN28 |
| Compliance | Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations | G4-EN29 |
| Transport | Significant environmental impacts transporting products and other goods and materials for the organization's operations, and transporting members of the workforce | G4-EN30 |
| Overall | Total environmental protection expenditures and investments by type | G4-EN31 |
| Supplier Environmental Assessment | Percentage of new suppliers that were screened using environmental criteria | G4-EN32 |
| | Significant actual and potential negative environmental impacts in the supply chain and actions taken | G4-EN33 |
| Environmental Grievance Mechanisms | Number of grievances about environmental impacts filed, addressed and resolved through formal grievance mechanisms | G4-EN34 |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

Table 10. Social Category Indicators and respective codes (part I)

| Social Category (part I) | | |
|---|--|---------|
| Aspect | Indicator | Code |
| Employment | Total number and rates of new employee hire and employee turnover by age group, gender, and region | G4-LA1 |
| | Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation | G4-LA2 |
| | Return to work and retention rates after parental leave, by gender | G4-LA3 |
| Labour/Management Relations | Minimum notice periods regarding operational changes, including whether these are specific in collective agreements | G4-LA4 |
| Occupational Health and Safety | Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs | G4-LA5 |
| | Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities, by region and by gender | G4-LA6 |
| | Workers with high incidence or high risk of disease related to their occupation | G4-LA7 |
| | Health and safety topics covered in formal agreements with trade unions | G4-LA8 |
| Training and Education | Average hours of training per year per employee by gender and by employee category | G4-LA9 |
| | Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings | G4-LA10 |
| | Percentage of employees receiving regular performance and career development reviews, by gender and by employee category | G4-LA11 |
| Diversity and Equal Opportunity | Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership and other indicators of diversity | G4-LA12 |
| Equal Remuneration for Women and Men | Ratio of basic salary and remuneration of women to men by employee category by significant locations of operation | G4-LA13 |
| Supplier Assessment for Labor Practices | Percentage of new suppliers that were screened using labor practices criteria | G4-LA14 |
| | Significant and potential negative impacts for labor practices in the supply chain and actions taken | G4-LA15 |
| Labour Practices Grievance Mechanisms | Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms | G4-LA16 |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

Table 11. Social Category Indicators and respective codes (part II)

| Social Category (part II) | | |
|--|--|---------|
| Aspect | Indicator | Code |
| Investment | Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening | G4-HR1 |
| | Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained | G4-HR2 |
| Non-discrimination | Total number of incidents of discrimination and corrective actions taken | G4-HR3 |
| Freedom of Association and Collective Bargaining | Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights | G4-HR4 |
| Child Labour | Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor | G4-HR5 |
| Forced or Compulsory Labour | Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor | G4-HR6 |
| Security Practices | Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations | G4-HR7 |
| Indigenous Rights | Total number of incidents of violations involving rights of indigenous peoples and actions taken | G4-HR8 |
| Assessment | Total number and percentage of operations that have been subject to human rights reviews or impact assessments | G4-HR9 |
| Supplier Human Rights Assessment | Percentage of new suppliers that were screened using human rights criteria | G4-HR10 |
| | Significant actual and potential negative human rights impact in the supply chain and actions taken | G4-HR11 |
| Human Rights Grievance Mechanisms | Number of grievances about human rights impacts filed, addressed and resolved through formal grievance mechanisms | G4-HR12 |

Source: Adapted from <https://www.globalreporting.org/resourcelibrary/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

Table 12. Social Category Indicators and respective codes (part III)

| Social Category (part III) | | |
|---|---|-------------|
| Aspect | Indicator | Code |
| Communities | Percentage of operations with implemented local community engagement, impact assessments and development programs | G4-SO1 |
| | Operations with significant actual and potential negative impacts on local communities | G4-SO2 |
| Anti-Corruption | Total number and percentage of operations assessed for risks related to corruption and the significant risks identified | G4-SO3 |
| | Communication and training on anti-corruption policies and procedures | G4-SO4 |
| | Confirmed incidents of corruption and actions taken | G4-SO5 |
| Public Policy | Total value of political contributions by country and recipient/beneficiary | G4-SO6 |
| Compliance | Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations | G4-SO8 |
| Supplier Assessment for Impacts on Society | Percentage of new suppliers that were screened using criteria for impacts on society | G4-SO9 |
| | Significant actual and potential negative impacts on society in the supply chain and actions taken | G4-SO10 |
| Grievance Mechanisms for Impacts on Society | Number of grievances about impacts on society filed, addressed and resolved through grievance mechanisms | G4-SO11 |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

Table 13. Social Category Indicators and respective codes (part IV)

| Social Category (part IV) | | |
|----------------------------------|---|--------|
| Aspect | Indicator | Code |
| Customer Health and Service | Percentage of significant product and service categories for which health and safety impacts are assessed for improvement | G4-PR1 |
| | Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes | G4-PR2 |
| Product and Service Labelling | Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements | G4-PR3 |
| | Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes | G4-PR4 |
| | Results of surveys measuring customer satisfaction | G4-PR5 |
| Marketing Communications | Sale of banned or disputed products | G4-PR6 |
| | Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes | G4-PR7 |
| Customer Privacy | Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data | G4-PR8 |
| Compliance | Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services | G4-PR9 |

Source: Adapted from <https://www.globalreporting.org/resource/library/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June 30, 2016

a) SIGMA Project (2008)

Concerning SIGMA project, Siew (2015) defines it as a four-phase cycle that companies must follow, in order to manage their sustainable issues in the most effective way possible. The cycles are (1) Leadership and Vision; (2) Planning; (3) Delivery, and (4) Monitor.

b) DPSIR Framework

Kristensen (2004) defines DPSIR framework as the chain of drivers that will impact the quality of ecosystems. The chain is defined in the following way: Driving forces, such as economic sectors, exert pressure, for example, by waste that leads to different states, like biological and physical issues, that finally will have impacts on, for example, ecosystems and human health. According to the author, this framework helps companies understand the real effect of their activities on ecosystems.

c) Global Compact

According to research by Siew (2015), Global Compact is the set of principles issued by the United Nations regarding the following areas: (1) Human Rights; (2) Labor; (3) Environment and (4) Anti-Corruption. This institution helps companies applying these principles within their sphere of influence.

d) CDP

With equal relevance, CDP or Carbon Disclosure Project is the largest database in the world regarding environmental disclosure. This institution assesses corporations, based on greenhouse emissions, water use, and climate change strategies. The objective of CDP is to help companies, cities and regions to measure and manage their environmental impacts⁴.

⁴ Retrieved from <https://www.cdp.net/en/info/about-us> on July 2, 2016

The **Standards** group corresponds to the requirements, specifications, and characteristics that represent the best practices regarding the different stakeholders. In the next table are represented some of the most followed standards.

Table 14. Corporate Social Standards

| Standards | Objective |
|------------|---|
| AA1000 | Provides companies a set of principles to understand, implement and communicate their accountability. |
| SA8000 | Provides a standard according to international and national human rights norms so that the employees feel safe and empowered. |
| ISO14001 | Provides a standard for environmental management that companies can use in the reporting activity. |
| ISO9001 | Provides the requirements for quality management. |
| EMAS | Encourages companies to evaluate the report and improve on environmental performance. |
| OHSAS18001 | Provides standards to assess health and safety. |

Source: Adapted from Siew (2015)

Indexes appear as the third and last SRT. This group aims to measure the companies' commitment with the different areas of CSR (Wilburn, 2014).

Research by Jankalova (2016) shows the most widely known Indexes are a) Dow Jones Sustainability Index (DJSI); b) FTSE4Good Index; c) Ethibel Index and d) MSCI World ESG Index. Each one of them establishes "socially responsible behavior" criteria so the companies that fulfill the requirements can be part of it.

a) DJSI

Dow Jones Sustainability Index was launched in 1999, and comprises global, regional and country benchmarks, so the investors can make responsible decisions regarding their portfolios. In fact, only the top ranked organizations in terms of sustainability within each industry are able to be part of DJSI⁵.

b) FTSE4Good Index

FTSE4Good Index is a Socially Responsible Investment (SRI) Index, created by the FTSE (Financial Times Stock Exchange) group in 2001 (Slager, 2014). In turn, it has a series of internationally recognized selection criteria regarding ethical issues, so the investors can make responsible investments (Charlo *et al.* 2015). The next table provides an overview of the FTSE4Good Index Family.

Table 15. FTSE4 Good Indexes Family

| FTSE4 Good Indexes | |
|------------------------|-------------------------|
| Description | Applicability |
| FTSE4Good Global Index | International Companies |
| FTSE4Good USA Index | USA Companies |
| FTSE4Good Europe Index | European Companies |
| FTSE4Good Japan Index | Japanese Companies |
| FTSE4Good IBEX | Spanish Companies |

Source: Adapted from Charlo *et al.* (2015)

c) Ethibel Index

Ethibel Index audits, rates and certifies financial products and services that meet specific standards in terms of ethics and sustainability.

⁵ Retrieved from <http://www.sustainability-indices.com/index-family-overview/djsi-family-overview/index.jsp> on July 2, 2016

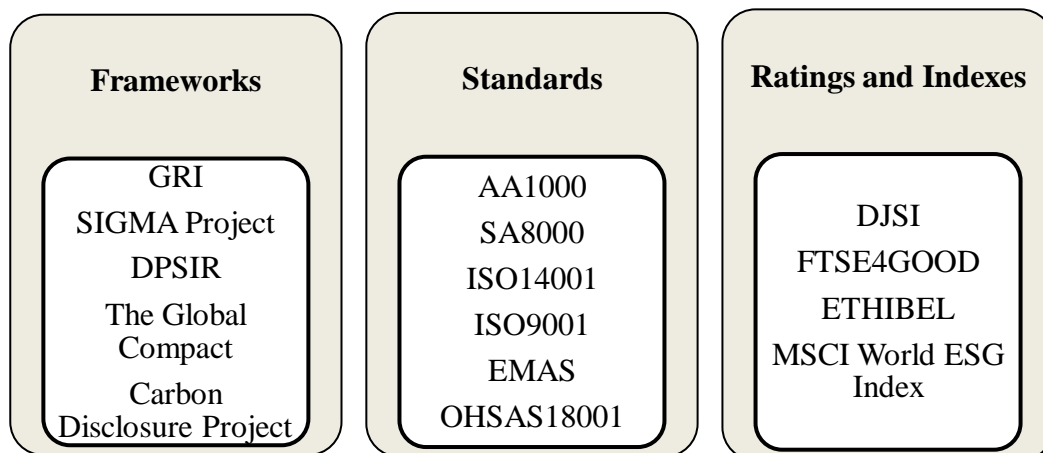
The Ethibel family includes (1) Ethibel Sustainability Index Excellence Europe, that contains 200 shares of European Companies with the best performance in terms of CSR, and (2) Ethibel Sustainability Index Excellence Global, which contains a number of shares of Global Companies with the best performance in terms of CSR⁶.

d) MSCI World ESG Index

MCSI World ESG Index is composed of the companies with the best performance in Environmental, Social and Governance (ESG) domains. At the end of June 2016, the top three constituents were (1) Microsoft Corporation; (2) Johnson & Johnson, and (3) Procter & Gamble. The Index is annually reviewed with quarterly replacements⁷.

The next figure summarizes the three groups of Corporate SRTs approached as tools to study CSR in practice.

Figure 8. Examples of corporate SRTs



Source: Adapted from Siew (2015) and Jankalova (2016)

After reviewed all the SRTs, it is important to note that one of the most important challenges in the CSR field is to find a standardized method for valuing CS.

⁶ Retrieved from http://forumethibel.org/content/over_forum_ethibel.html on July 2, 2016

⁷ Retrieved from https://www.msci.com/resources/factsheets/index_fact_sheet/msci-world-esg-index.pdf on July 2, 2016

2.5. Relating Social and Financial Performance

As we observed before, measure companies' sustainable efforts is an important part of the CSR science, once it allows understanding if the organizations are committed with the different domains their activities have an impact on. At the same time, understand if the companies' social performance (CSP) can be associated to their corporate financial performance (CFP), constitutes a relevant subject of study, once the primary objective of any organization is to be profitable, and CSR activities comports costs that can condition that goal.

Several studies exist relating CSP and CFP. That relation can be positive, negative or neutral. If CSP has a positive impact on CFP, it suggests market forces reward companies that are high in sustainability performance (Lu and Taylor, 2016). On the opposite side, a negative relation between CSP and CFP suggests the investments on CSR are compromising the company's value creation. In the neutral side, a certain level of sustainability efforts has zero impact on financial performance (Marcus, 1993).

The next sub-sections will not only present the Capital-based theory of performance, but also the fundamentals for the different typologies of the relationship between CSP and CFP.

2.5.1. *Capital-based theory of performance*

McElroy and Engelen (2012) presented a framework that divides the company's performance in financial and non-financial, according to the capital(s) the firm should focus on. Both fields have the same importance to achieve healthy performance, as is shown in the next table.

Table 16. Capital-based theory of performance

| | <i>Vital Capital(s)</i> | <i>Duties and Obligations</i> | <i>Terms of Performance</i> |
|----------------------------------|-------------------------------------|--|-----------------------------|
| <i>Financial Performance</i> | Monetary | Maintain level of capital for shareholder well-being | Profitability |
| <i>Non-Financial Performance</i> | Natural; Human; Social; Constructed | Maintain level of capital for stakeholder well-being | Sustainability |

Source: Adapted from McElroy and Engelen (2012)

Table 16 illustrates that Profitability and Sustainability must coexist in a competitive environment. They are achievable if the managers were able to maintain a certain level of both in the daily operations of their company.

The vital capitals that should be well-managed are:

- a) **Monetary:** Corresponds to the money and other financial assets;
- b) **Natural:** Encompasses natural resources, living organisms and ecosystem services;
- c) **Social:** Means the shared knowledge and organizational resources that help individual and collective action;
- d) **Constructed:** Is about material objects and/or physical infrastructures in which humans take action.

2.5.2. Relationship between Corporate Social and Financial Performance

We cannot make conclusions about the type of association between CSP and CFP without analyzing important variables, such as the type of industry, size, and age of the firm, the level of growth, risk and availability of resources (Santoso and Feliana, 2014).

2.5.2.1. Positive relation

Several authors confirm a positive association between CSP and CFP. For example, Trudel and Cotte (2009) made a series of experiences which led to the following conclusions:

- a) Customers are willing to pay more for ethical products;
- b) Customers demand a price reduction of products made by non-ethical enterprises;
- c) Customers affirm if companies invest a little portion in ethical production, it will be equal as if they have invested a voluptuous amount in “regular” production.

In addition, Blazovich and Smith (2011) go further by arguing that an ethical behavior will allow the company to achieve higher profits, operational growth and efficiency at a lower risk.

Marcus (1993) defends that companies capable of having a positive social performance, are also able to achieve strong financial performance. He gives three reasons why this statement is true:

- a) A manager that have skills of social management also have the capacity to run the company financially;

- b) Being socially responsible enable the company to create goodwill, which is an important asset that will be favorable to the financial performance;
- c) CSR motivates employees, that become more productive and also reduces the probability of the existence of strikes and other movements that can mean additional costs to the company.

2.5.2.2. Negative relation

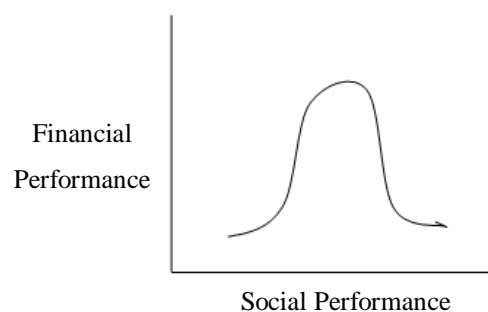
Marcus (1993) defends companies can suffer from concentrating their efforts on social performance, once they may occur in costs that will put them in disadvantage comparing to the competition.

Orlitzky (2013) argues CSR activities are not aligned with business economic principles, and because of that, managers are encouraged to alter information about those activities to the market participants. In this way, noise is created in financial markets, which will increase their volatility and consequently firms' stock prices are more susceptible to decrease.

2.5.2.3. U-shaped relationship

Marcus (1993) also states that social and financial performances are not always linearly correlated. In this case, too much or too little CSR actions do not contribute to firm's performance. The graphic bellow shows that the social actions with middle scope are the ones which seem to impact more positively the financial performance.

Figure 9. U-Shaped Relationship between Social and Financial Performance



Source: Adapted from Marcus (1993)

Different examples of types of the relation between CSP and CFP are detailed in **table 17**. The table approaches six examples of countries where this type of investigation was conducted, and the respective results.

Table 17. Examples of relationship typologies between CSP and CFP

| Country | Period | Sample/Industry | Measure for CFP | Results |
|---------------------|---------------|--------------------|-------------------------|---|
| Spain | 2003-2010 | IBEX 35 | ROA; ROE | Neutral relationship between CSR and ROA/ROE |
| Japan | 2005-2011 | Chemical Industry | Net Income | Causal positive relationship between environmental conservation costs and net income |
| Korea | 2004-2010 | Various industries | ROA; ROIC; Sales growth | Positive impact of CSR in ROA/ROIC and sales growth |
| Indonesia | 2010-2012 | Various industries | ROA; ROE | Positive impact of CSR in ROA/ROE |
| South Africa | 2004-2013 | Various industries | EPS; ROE; ROA | Relationship sensitive to the type of financial performance indicator used. Example: in consumer services industry, exists a positive impact of CSR in ROE, but a negative impact of CSR in EPS |
| Nigeria | not available | Various industries | Profit | Strong positive relationship between CSR and profits |

Source: Adapted from Oh and Park (2015); Madorran and Garcia (2014); Santoso and Feliana (2014); Chiang *et al.* (2015); Nwidobie (2014) and Chetty *et al.* (2015).

CHAPTER 3 - METHODOLOGY

The subjects approached during the literature review will be the basis of the empirical research, which objectives and questions are going to be detailed and justified in the five sections of the present chapter. Each section represents (1) Research objectives and questions; (2) Conceptual models and research hypothesis; (3) Sampling Process and period of analysis; (4) First research question's methodological approach and, (5) Second research question's methodological approach.

3.1. Research Objectives and Questions

The main goals of the study are valid for the years of 2014 and 2015 and are summarized below.

- 1) Provide a better knowledge about the social panorama in Portugal in terms of the disclosure and reporting practices applied by the biggest companies in the country, listed at the PSI 20 Index;
- 2) Measure the PSI 20 companies' CSP by the construction of a CS Index, based on the level of compliance of their CSR information with the GRI G4 guidelines;
- 3) Verify if the social performance of the PSI 20 companies can be correlated or not with their financial performance.

In order to achieve the research objectives, two questions must be addressed:

- a) What is the level of importance PSI 20 companies give to CSR reporting and disclosure?
- b) Does the CSP of the PSI 20 companies' impacts positively their CFP?

The first two objectives will be attained by answering to the first research question, and the third objective of the investigation will be achieved by addressing the second research question.

3.2. Conceptual Models and Research Hypothesis

The literature review provided different approaches regarding a) ways to define CSR; b) possible types of relation between CSP and CFP, and c) different tools to evaluate the level of commitment the companies have with CSR.

This section describes the assumed conceptual models of the investigation, and presents the research hypothesis that aims to answer the research question, “*Does the CSP of the PSI 20 companies’ impacts positively their CFP?*”

a) CSR Definition

CSR’s definition according to Simionescu (2015) will be the basis for this research. The author argues societies and organizations should cooperate closely to achieve sustainable development, and because of that CSR programs must be based on Economic, Social, Cultural and Environmental sustainability. Due to this, CSR and sustainability will be approached as terms with equal value.

b) Relationship between CSP and CFP and Research Hypothesis

The three typologies of the relationship between CSP and CFP were approached during the literature review chapter. Therefore, it is possible the existence of a positive (Blazovich and Smith, 2011), negative (Orlizky, 2013) or neutral (Marcus, 1993) relationship between these two variables. The following hypothesis will be formulated assuming the positivism defended by Blazovich and Smith (2011).

Hypothesis 1: There is a linear and positive effect of the Corporate Social Responsibility Performance on Corporate Financial Performance

c) Measurement of CSR efforts

During the literature review were described different frameworks, standards, and ratings/indexes to help assessing companies’ CSR efforts.

The inexistence of a standardized method to measure CSR for all the PSI 20 companies justifies the necessity to create a common measurement tool, capable of classifying the 18 companies for the years of the investigation.

The framework assumed to measure the CSR efforts of the PSI 20 companies is GRI guidelines, more precisely the G4 specific indicators, which belong to the specific standards' section, and are mentioned in detail between the pages number 25 and 31.

It was chosen GRI directives mainly because of three reasons:

- 1) According to a number of studies, GRI is the most widely used framework providing sustainability reporting guidelines (Brown *et al.*, 2009; Skouloudis *et al.*, 2009; Tsang *et al.*, 2009; Rashe, 2009; Prado-Lorenzo *et al.*, 2010; Levy *et al.*, 2010; Marimon *et al.*, 2012; Chirstofi *et al.*, 2012; Roca and Searcy, 2012). In fact, of the world's largest 250 companies, 68% report sustainability using GRI guidelines⁸.
- 2) The guidelines are designed to be suitable for institutions of all type, sector, and dimension⁹.
- 3) It has been a constant improvement of the framework since its creation, in order to respond to stakeholders and market demands, trough trust and transparency (Alonso-Almeida *et al.*, 2014).

Regarding the Portuguese reality, it was conducted a study, "*Um Índice de Responsabilidade Social Empresarial para a Realidade Portuguesa*", by Faria (2010) that also used this framework to construct a measurement tool for CSR.

3.3. Sampling Process and Period of Analysis

One of the objectives of the investigation is to understand the social panorama in Portugal, so it must be contextualized by approaching representative companies of the Portuguese business fabric, that also have publicly available information. Therefore, our sample was collected from Euro next Lisbon PSI 20 Index.

⁸ Retrieved from <https://www.globalreporting.org/information/sustainability-reporting/Pages/gri-standards.aspx> on June 30, 2016

⁹ Retrieved from <https://www.globalreporting.org/standards/g4/Pages/default.aspx> on June 30, 2016

PSI 20 Index is constituted by the shares issued by maximum 20 highest companies in terms of free float market capitalization. Along these lines, those companies must have a minimum free float of € 100 million. The composition of the Index is revised on an annual basis each March, with new entries or replacements quarterly. At the current date, 18 companies figure at the PSI 20 index. The weight of each one in the index is determined by the free float-adjusted market capitalization¹⁰.

The research will be conducted for the years of 2014 and 2015 in order to obtain the most recent information and consequently closest results from actuality.

The table below shows the companies listed on Lisbon's stock exchange' PSI 20 Index.

Table 18. PSI 20 Index' Components

| PSI 20 Index Components | |
|--------------------------------|-------------------|
| GALP Energia | REN |
| Jerónimo Martins SGPS | Banco BPI |
| EDP | SEMAPA |
| NOS SGPS | Altri SGPS |
| EDP Renováveis | Corticeira Amorim |
| BCP | Mota Engil |
| CTT Correios | Montepio |
| SONAE | Pharol |
| The Navigator Company | Sonae Capital |

Source: <http://www.bolsadelisboa.com.pt/products/indices/PTING0200002-XLIS/market-information> on July 2,

2016

The next sections provide the methodological approaches to answering the two research questions, which have in consideration the sample and period of analysis defined in this section.

¹⁰ Retrieved from <http://www.bolsadelisboa.com.pt> on June 29, 2016

3.4. First research question's methodological approach

The first research question is the following “*What is the level of importance PSI 20 companies give to CSR reporting and disclosure?*”

To be possible to address this issue, follows the types of data required as well as their treatment and collection sources.

3.4.1. Types of data and data treatment

Firstly, a brief analysis of the PSI 20 Index will be conducted in order to increase the knowledge about the Index.

The next stage will be designed to understand the importance PSI 20 companies give to CSR, by the creation of a Corporate Sustainability Index (CS Index) for each company and year under analysis. Each CS Index will measure the level of compliance of the sustainable information disclosed by the PSI 20 companies with the Global Reporting Initiative (GRI) G4 Specific Indicators.

There are 91 GRI G4 Specific Indicators organized in three categories.

Table 19. GRI G4 Specific Indicators

| GRI G4 Specific Indicators | |
|----------------------------|----|
| Economic Category | 9 |
| Environmental Category | 34 |
| Social Category | 48 |
| Total | 91 |

Source: <https://www.globalreporting.org/resourcelibrary/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf>, on June 30, 2016

Between the pages number 25 and 31, it is possible to access in detail the 91 indicators.

The level of concordance between the sustainable information revealed by the PSI 20 companies and each one of the GRI G4 Specific Indicators can assume one of three possible values. If the classification is 0, the company does not make any reference to the Specific Indicator; a score of 1 means the organization makes incomplete reference to the Specific Indicator; a score of 2 occurs when the company approaches the Specific Indicator the way it is proposed by GRI G4 guidelines.

Table 20. Scale to measure the level of concordance between PSI 20 companies' sustainable information and GRI G4 Specific Indicators

| Scale | Classification |
|-------|---|
| 0 | The company does not make reference to the indicator |
| 1 | The company makes reference to the indicator but do not comply it totally |
| 2 | The company makes reference to the indicator and comply it |

Source: Adapted from Faria (2010)

This evaluation methodology assumes that a company with the habit to disclose its sustainable practices according to GRI G4 guidelines has also a greater level of Corporate Social Performance (CSP).

The final step consists in the creation of the CS Index, which will reflect the classification obtained in each one of the three sustainability categories: Environmental, Economic, and Social.

The next equation translates mathematically the CS Index.

Equation 1. CS Index for company i in the year j

$$CS\ Index_{i,j} = EC\ Index_{i,j} + EN\ Index_{i,j} + SO\ Index_{i,j}$$

Where:

- $CS\ Index_{i,j}$ is the CS Index obtained for the company i in the year j ;
- $EC\ Index_{i,j}$ is the classification obtained in the economic GRI G4 indicators divided by 9;
- $EN\ Index_{i,j}$ is the classification obtained in the environmental GRI G4 indicators divided by 34;
- $SO\ Index_{i,j}$ is the classification obtained in the social GRI G4 indicators divided by 48;
- $i = 1, \dots, 18$
- $j = 14$ or 15 .

The closer the CS Index is from two, the better the company discloses Economic, Social, and Environmental Information, according to GRI G4 guidelines.

3.4.2. Sources of data

The overview of the PSI 20 Index will be possible by assessing the Euro next's website.

The evaluation of the PSI 20 companies' disclosure and reporting practices, and the construction of the CS Indexes will be based on the following sources:

- a) PSI 20 companies' websites, more precisely their annual and sustainability reports;
- b) GRI's website, more concretely the G4 guidelines report.

The following table shows the availability of annual sustainability reports regarding the period of analysis.

Table 21. PSI 20 components' availability of annual sustainability reports for 2014-2015

| PSI 20 Component | Annual Sustainability Report | |
|-----------------------|------------------------------|------|
| | 2014 | 2015 |
| GALP Energia | ✓ | ✓ |
| Jerónimo Martins SGPS | ✓ | ✓ |
| EDP | ✓ | ✓ |
| NOS SGPS | - | - |
| EDP Renováveis | ✓ | ✓ |
| BCP | ✓ | - |
| CTT Correios | ✓ | - |
| SONAE | ✓ | ✓ |
| The Navigator Company | ✓ | ✓ |
| REN | ✓ | ✓ |
| Banco BPI | - | - |
| SEMAPA | - | - |
| Altri SGPS | - | - |
| Corticeira Amorim | - | - |
| Mota Engil | ✓ | - |
| Montepio | - | - |
| Pharol | - | - |
| Sonae Capital | - | - |

Source: Elaborated by the author, based on PSI 20 components' web-sites

For the year of 2014, 10 companies presented their sustainable information in an annual sustainability report. For the next year, the number decreases, once seven organizations continue to present their information regarding CSR in a separate report. This decreasing is due to *BCP*, *CTT Correios*, and *Mota Engil*, which produced the last sustainability report for 2014.

3.5. Second research question's methodological approach

The second research question states, “*Does the CSP of the PSI 20 companies' impacts positively their CFP?*”

The methodology to approach this question is described below.

3.5.1. Types of data and data treatment

The starting point to answer the second research question is to define how Corporate Social Performance (CSP) and Corporate Financial Performance (CFP) will be measured.

CSP will be assessed by the CS Index' components, which are: EN Index; EC Index and SO Index, defined in the first research question's methodological approach on page number 46.

The selection of the indicators to measure CFP will be based on an empirical study conducted by Boaventura *et al.* (2012). This investigation found 198 articles between 1996 and 2010 analyzing the relationship between CSP and CFP, in which the top four indicators used to measure CFP were: Return on Assets (ROA); Return on Equity (ROE); Sales Growth and Return on Sales (ROS).

This investigation will consider ROA, ROE, and ROS to measure the PSI 20 components' financial performance.

Table 22. Financial Performance' measures for the PSI 20 companies

| Financial Performance' Measure | Proxy |
|--------------------------------|-------------------|
| ROA | Net income/Assets |
| ROE | Net income/Equity |
| ROS | Net income/Sales |

Source: Elaborated by the author

The linear association between CSP and CFP will be tested using the statistical technique called multiple linear regression model. **Equation 2** translates the model mathematically.

Equation 2. Multiple Linear Regression Model

$$P_{i,j} = \beta_0 + \beta_1 EC Index_{i,j} + \beta_2 SO Index_{i,j} + \beta_3 EN Index_{i,j} + E_{i,j}$$

Where:

- $P_{i,j}$ makes reference to the CFP indicators (ROA, ROE, and ROS) for company i at year j ;
- $EC Index_{i,j}$ makes reference to the Economic Index for company i at year j ;
- $SO Index_{i,j}$ makes reference to the Social Index for company i at year j ;
- $EN Index_{i,j}$ makes reference to the Environmental Index for company i at year j ;
- $i = 1, \dots, 18$;
- $j = 2014, 2015$

Once the objective is to test the validity of the research hypothesis “*There is a linear and positive effect of the Corporate Social Responsibility Performance on Corporate Financial Performance*”, the CFP indicators appear as dependent variables and the CSP indicators as independent variables.

3.5.2. Sources of data

The construction of the CS Indexes will be based on the following sources:

- a) PSI 20 companies’ websites, more precisely their annual and sustainability reports;
- b) GRI’s website, more concretely the G4 guidelines report.

The obtainment of the indicators to measure CFP of the PSI 20 companies, will be from the annual reports for the years under investigation, which can be found at the companies’ websites.

CHAPTER 4 – RESULTS

This chapter consists of the presentation and discussion of the results regarding the two dissertation questions. First of all, will be conducted a detailed description of the results for each research question. Secondly, it will be provided a brief discussion of the results, regarding their main practical implications.

4.1. First research question's results

In order to answer the first research question, “*What is the level of importance PSI 20 companies give to CSR reporting and disclosure?*” two stages must be approached. Firstly, it will be conducted a brief analysis of the PSI 20 index composition. Secondly, it will be analyzed the PSI 20 companies reporting and disclosure practices through the presentation and justification of the CS Indexes obtained for both years.

4.1. 1. PSI 20 Index Overview

Table 23. PSI 20 Companies weight on the Index and Sector of Activity

| PSI 20 Components | Sector | Weight on PSI 20 |
|-----------------------|-------------------------------|------------------|
| GALP Energia | Oil & Gas Producers | 13,31% |
| Jerónimo Martins SGPS | Food & Drug Retailers | 12,67% |
| EDP | Electricity | 12,11% |
| NOS SGPS | Media | 11,58% |
| EDP Renováveis | Electricity | 10,22% |
| BCP | Banks | 9,14% |
| CTT Correios | Industrial Transportation | 8,07% |
| SONAE | Food & Drug Retailers | 4,39% |
| The Navigator Company | Forestry & Paper | 4,26% |
| REN | Electricity | 3,47% |
| BPI | Banks | 3,43% |
| SEMAPA | Forestry & Paper | 1,80% |
| Altri SGPS | General Industrials | 1,55% |
| Corticeira Amorim | Beverages | 1,28% |
| Mota Engil | Construction & Materials | 1,09% |
| Montepio | Banks | 0,70% |
| Pharol | Fixed Line Telecommunications | 0,54% |
| Sonae Capital | Financial Services | 0,37% |

Source: <http://www.bolsadelisboa.com.pt/products/indices/PTING0200002-XLIS/market-information> on July 12, 2016

An overview of the index composition allows concluding the most expressive companies belong to industries related with primary necessity goods and services concerning the Portuguese population, such as gas and electricity supply (*GALP* and *EDP*), and also nutrition, hygiene and personal care (*Jerónimo Martins SGPS*). A closer look at the index composition allows concluding the most expressive sector is electricity, represented by *EDP*, *EDP Renováveis*, and *REN*, which together mean 25, 8% of the PSI 20. The industry of retail is represented in 17, 06% of the PSI 20 index due to the sum of *Jerónimo Martins* and *Sonae* importance. The third most significant sector disclosed at the PSI 20 is related with the banking area, being represented at 13, 27% by the following banks: *BCP*, *BPI*, and *Montepio*.

4.1.2. PSI 20 companies' reporting and disclosure practices and CS Indexes

Table 24 shows the final values of the CS Indexes and also the final evaluations regarding economic, environmental, and social Indexes. The classification obtained for each one of the 91 indicators can be assessed in the appendices chapter.

Table 24. CSP indicators for 2014 and 2015

| PSI 20 Company | Year | EC Index | EN Index | SO Index | CS Index | PSI 20 Company | Year | EC Index | EN Index | SO Index | CS Index |
|-----------------------|------|----------|----------|----------|-------------|-------------------|------|----------|----------|----------|-------------|
| GALP Energia | 2014 | 2,00 | 2,00 | 2,00 | 2,00 | REN | 2014 | 1,56 | 1,00 | 0,88 | 1,14 |
| | 2015 | 2,00 | 2,00 | 2,00 | 2,00 | | 2015 | 2,00 | 2,00 | 2,00 | 2,00 |
| Jerónimo Martins SGPS | 2014 | 0,78 | 0,79 | 0,48 | 0,68 | BPI | 2014 | 0,67 | 0,88 | 0,17 | 0,57 |
| | 2015 | 1,11 | 1,53 | 0,92 | 1,19 | | 2015 | 0,67 | 0,88 | 0,17 | 0,57 |
| EDP | 2014 | 2,00 | 2,00 | 2,00 | 2,00 | SEMAPA | 2014 | 0,67 | 0,00 | 0,06 | 0,24 |
| | 2015 | 2,00 | 2,00 | 2,00 | 2,00 | | 2015 | 0,67 | 0,00 | 0,06 | 0,24 |
| NOS SGPS | 2014 | 0,67 | 0,00 | 0,06 | 0,24 | Altri SGPS | 2014 | 0,44 | 0,21 | 0,15 | 0,27 |
| | 2015 | 0,44 | 0,00 | 0,13 | 0,19 | | 2015 | 0,78 | 0,32 | 0,06 | 0,39 |
| EDP Renováveis | 2014 | 2,00 | 2,00 | 2,00 | 2,00 | Corticeira Amorim | 2014 | 0,22 | 0,26 | 0,27 | 0,25 |
| | 2015 | 2,00 | 2,00 | 2,00 | 2,00 | | 2015 | 0,22 | 0,26 | 0,27 | 0,25 |
| BCP | 2014 | 0,78 | 0,85 | 0,63 | 0,75 | Mota Engil | 2014 | 1,33 | 1,06 | 1,46 | 1,28 |
| | 2015 | 0,67 | 0,71 | 0,73 | 0,70 | | 2015 | 1,33 | 0,00 | 0,15 | 0,49 |
| CTT Correios | 2014 | 2,00 | 2,00 | 2,00 | 2,00 | Montepio | 2014 | 1,22 | 0,21 | 0,46 | 0,63 |
| | 2015 | 1,22 | 0,32 | 1,02 | 0,86 | | 2015 | 1,22 | 0,00 | 0,42 | 0,55 |
| SONAE | 2014 | 2,00 | 2,00 | 2,00 | 2,00 | Pharol | 2014 | 0,33 | 0,00 | 0,00 | 0,11 |
| | 2015 | 2,00 | 2,00 | 2,00 | 2,00 | | 2015 | 0,33 | 0,00 | 0,00 | 0,11 |
| The Navigator Company | 2014 | 2,00 | 2,00 | 2,00 | 2,00 | Sonae Capital | 2014 | 0,56 | 0,00 | 0,13 | 0,23 |
| | 2015 | 2,00 | 2,00 | 2,00 | 2,00 | | 2015 | 0,56 | 0,00 | 0,06 | 0,21 |

Source: Elaborated by the author

The companies that appear with the maximum value of the CS Index in both years is because they have fully adopted the GRI G4 guidelines in their sustainable reporting activity, which means their report is in total accordance with GRI G4 specific indicators. They are *GALP Energia*; *EDP*; *EDP Renováveis*; *SONAE* and *The Navigator Company*.

Jerónimo Martins has sustainability reports for both years. It is possible to conclude an improvement on CSR reporting by comparing the two CS Indexes (from 0, 68 points to 1, 19 points), which means the information disclosure is getting more detailed regarding GRI G4 environmental, social and economic indicators.

In 2014, NOS only makes reference to the sustainability topic in three pages of the annual report, not providing specific indicators for measuring sustainability. The company announced in that year's report it will start to adopt GRI Guidelines to overcome this GAP. This was not accomplished because the organization still does not make any mention to GRI Guidelines in the annual report of 2015, providing insufficient data about sustainability. Because of this, the CS Index is near zero for both years (0, 24 and 0, 19 points).

BCP has only sustainability report for 2014. However, for 2015, the company was able to cover in its annual report almost the same topics approached on the sustainability report of 2014. Consequently, the CS Indexes are almost the same for both years (0, 75 points and 0, 7 points respectively).

The last sustainability report *CTT* has produced was for the year of 2014 and it was in total accordance with GRI G4 Guidelines. For 2015, the information regarding CSR was only at the annual report, in which the company approached CSR by referring less information, but under some of the GRI Indicators. These facts justify the score of 2 for 2014 and 0, 86 for 2015.

For the year of 2015, *REN* used GRI G4 guidelines, which justifies the value of 2 obtained at the CS Index. For the year before, the company used the old GRI guidelines scoring 1, 14 points.

For 2014 and 2015, *BPI* does not have sustainability report, dedicating six pages of the annual reports to CSR, approaching the same subjects in both years. In the annual reports, the company only makes reference to contributions in the area of social solidarity; culture; education and investigation; entrepreneurship, and innovation. For these reasons, the CS Indexes are equal for 2014 and 2015 (0, 57 points).

SEMAPA does not have sustainability reports for 2014 and 2015, dedicating one page of both annual reports to sustainability, in which are described donations to projects supported by the company. Consequently, the CS Indexes are 0, 27 for both years, mainly because of the financial data reported, which scored in the economic category.

Altri does not have sustainability report for 2014 and 2015. In its annual reports, the company makes reference to CSR on two pages, by approaching the topics of energy consumption and emissions, and by providing more descriptive information about carrying with communities and donations. Therefore, *Altri's* CS Index is one of the lowest and almost the same for the two years (0, 27 and 0, 39 points).

Corticeira Amorim published its last sustainability report in 2013. In the annual reports of 2014 and 2015, the organization only makes reference to CSR in three pages, by disclosing economic data and some indicators regarding materials consumption and human resources management. As the company approaches the same topics in both annual reports, the CS Index is the same for both years (0, 25 points). The company affirmed in its annual report that it was going to adopt GRI guidelines from the end of 2014, but nothing has been published since then.

For 2014, *Mota Engil* has sustainability report and approaches many of the indicators proposed by GRI G4 guidelines. Even so, the sustainability report of 2015 is not available at the date of the investigation, so the CS Index is substantially lower (from 1, 28 to 0, 49 points). In fact, in 2015 the company does not dedicate any page to sustainability, only providing indicators related to economic performance and human resources management.

Montepio does not produce sustainability reports, and in 2014 it only dedicated three pages of the annual report to talk about CSR, concerning training and education practices; volunteering; entrepreneurship and innovation; participation in social causes; customer satisfaction, and environment, very superficially. In 2015, the story is repeated but less information is given, which justifies the slight decrease of the CS Index comparing with the year before (from 0, 63 to 0, 55 points).

Pharol only has available annual reports, where it approaches financial information. For this reason the CS Index is minimal and the same for both years (0, 11 points). It is important to refer that this company obtained zero scores for both environmental and social dimensions.

Sonae Capital does not have sustainability report for both years, and in the annual reports, it only makes reference to financial data, not making any mention of human resources management, only the remuneration for the leading members. For this reason, the CS Indexes are similar and the second lowest of the PSI 20 universe (0, 23 and 0, 21 points).

4.2. Second research question's results

In order to answer the second research question “*Does corporate social performance of the PSI 20 companies' impacts positively on their corporate financial performance?*” three steps will be embraced. Firstly, it will be revealed and analyzed the CFP indicators. Secondly, it will be presented the main descriptive statistics concerning the CSP and CFP indicators. Finally, the study model results will be disclosed.

4.2.1. CFP indicators

Table 25. CFP indicators of sample for the period of analysis

| PSI 20 Company | Year | ROA % | ROE % | ROS % | PSI 20 Company | Year | ROA % | ROE % | ROS % |
|-----------------------|------|-------|-------|-------|-------------------|------|--------|--------|-------|
| GALP Energia | 2014 | -0,9 | -1,85 | -0,66 | REN | 2014 | 2,29 | 9,93 | 19,76 |
| | 2015 | 1,21 | 2,49 | 0,99 | | 2015 | 2,53 | 10 | 21,62 |
| Jerónimo Martins | 2014 | 6,38 | 18,84 | 2,56 | BPI | 2014 | -0,39 | -6,51 | -0,14 |
| | 2015 | 6,74 | 22,48 | 2,61 | | 2015 | 0,89 | 12,73 | 0,28 |
| EDP | 2014 | 2,95 | 10,56 | 7,76 | SEMAPA | 2014 | 3,71 | 12,31 | 7,62 |
| | 2015 | 2,93 | 10,29 | 8,04 | | 2015 | 3,22 | 11,56 | 6,13 |
| NOS SGPS | 2014 | 2,54 | 7,08 | 5,49 | Altri SGPS | 2014 | 3,02 | 13,73 | 6,89 |
| | 2015 | 2,77 | 7,76 | 5,77 | | 2015 | 9,85 | 36,51 | 17,91 |
| EDP Renováveis | 2014 | 0,88 | 1,99 | 10,93 | Corticeira Amorim | 2014 | 5,94 | 11,62 | 6,55 |
| | 2015 | 1,06 | 2,44 | 12,37 | | 2015 | 8,33 | 15,69 | 9,19 |
| BCP | 2014 | -0,15 | -2,34 | -0,05 | Mota Engil | 2014 | 2,1 | 14,38 | 3,51 |
| | 2015 | 0,48 | 6,35 | 0,16 | | 2015 | 1,05 | 7,77 | 2,21 |
| CTT Correios | 2014 | 6,51 | 30,84 | 10,93 | Montepio | 2014 | -0,83 | -13,22 | -0,24 |
| | 2015 | 6,44 | 28,62 | 10,22 | | 2015 | -1,15 | -18,11 | -0,53 |
| SONAE | 2014 | 2,61 | 7,85 | 2,93 | Pharol | 2014 | -23,73 | -25,09 | 0 |
| | 2015 | 3,38 | 9,85 | 3,53 | | 2015 | 224 | -2,32 | 0 |
| The Navigator Company | 2014 | 6,7 | 12,4 | 11,77 | Sonae Capital | 2014 | -0,99 | -2,05 | -0,36 |
| | 2015 | 8,08 | 14,7 | 12,06 | | 2015 | 0,24 | 0,45 | 0,08 |

Source: Elaborated by the author

The PSI 20 components that registered the best performance regarding ROA, were *The Navigator Company* in 2014 (6, 7%) and *Altri* in 2015 (9, 85%).

In terms of ROE, *CTT Correios* obtained the best value for 2014 (30, 84%) and *Altri* for 2015 (36, 51%).

The best performance concerning ROS was achieved by *REN* in both years, with values of 19, 76% in 2014 and 21, 62% in 2015.

The companies with a negative financial performance regarding ROA, ROE, and ROS for 2014 were *GALP Energia*, *BCP*, *BPI*, *Montepio*, *Pharol* and *Sonae Capital*. The tendency of lower performance remained the same for 2015, excepting for *Pharol* regarding ROA and *BPI* regarding ROE.

The increasing of *Pharol's* ROA from -23, 73 % to 224 % was due to a capital increase, translated in a gain of € 699 million, which exponentially impacted net income¹¹. *BPI's* increasing on ROE from -6, 5% to 12, 73% was due to a profit increase, from € -163, 6 million to € 236, 4 million in 2015¹². One last observation regarding *Pharol* allows concluding this company obtained the value of zero concerning ROS because it did not have sales for both years.

Mota Engil and *Altri* registered important positive variations from 2014 to 2015 in terms of ROE, with gains of 22, 78% and 6, 61%, respectively.

Jerónimo Martins, *EDP*, *NOS*, *EDP Renováveis*, *CTT Correios*, *The Navigator Company*, *REN*, *SEMAPA* and *Corticeira Amorim*, were able to maintain stable financial performance between 2014 and 2015, without significant variations in ROA, ROE, and ROS.

¹¹ Retrieved from http://conteudos.pharol.pt/Documents/PT/Relatorios/2016/04_Abril/RCCon2015_pt.pdf on September, 2 2016

¹² Retrieved from http://www.bancobpi.pt/nocachecontent/conn/UCM/uuid/dDocName:PR_WCS01_UCM01006853 on September, 2 2016

4.2.2. Descriptive Statistics

The next table presents the main descriptive statistics for the CFP and CSP indicators, obtained through SPSS Statistics 23 tool.

Table 26. Descriptive Statistics of the dependent and independent variables for 2014-2015

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| ROA (%) | 36 | -23,73 | 224,00 | 8,3525 | 37,34700 |
| ROE (%) | 36 | -25,09 | 36,51 | 7,7703 | 12,39653 |
| ROS (%) | 36 | -,66 | 21,62 | 5,7747 | 6,02592 |
| EC_Index | 36 | ,22 | 2,00 | 1,1790 | ,66469 |
| EN_Index | 36 | ,00 | 2,00 | ,9249 | ,85379 |
| SO_Index | 36 | ,00 | 2,00 | ,9087 | ,84316 |
| Valid N (listwise) | 36 | | | | |

Source: Elaborated by the author

The financial performance indicator with the best mean is ROA (8, 35%). Therefore, this indicator also presents the biggest variation between the minimum and maximum value (from -23, 73% to 224%). This fact impacts negatively standard deviation, which represents the highest value on the table (37,347). Consequently, the mean value for ROA is less reliable than the mean regarding ROE and ROS.

Regarding the Indexes measuring sustainability, EC Index presents the best mean (1, 18). This is due to the fact that the companies of the sample are obliged to disclose financial information, even if they have a poor performance in environmental and social terms, which are represented by the EN Index and SO Index.

The PSI 20 companies, on average, performed similarly in terms of EN Index and SO Index, once the mean value is approximately 0, 92 and 0, 91 for both indexes.

4.2.3. Study Model Results

The initial model is based on the literature review and assumes that a company which invests in economic, environmental and social sustainability will have a positive return in terms of financial success.

With effect, will be tested the validity of the hypothesis **H1**: *There is a linear and positive effect of the Corporate Social Responsibility Performance on Corporate Financial Performance*. As it was mentioned during the methodology chapter, that linear effect can be translated in mathematical terms by the following equation.

Equation 2. Multiple Linear Regression Model

$$P_{i,j} = \beta_0 + \beta_1 EC Index_{i,j} + \beta_2 SO Index_{i,j} + \beta_3 EN Index_{i,j} + E_{i,j}$$

Where:

- $P_{i,j}$ makes reference to the CFP indicators (ROA, ROE, and ROS) for company i at year j ;
- $EC Index_{i,j}$ makes reference to the Economic Index for company i at year j ;
- $SO Index_{i,j}$ makes reference to the Social Index for company i at year j ;
- $EN Index_{i,j}$ makes reference to the Environmental Index for company i at year j ;
- $i = 1, \dots, 18$;
- $j = 2014, 2015$

However, it is possible to determine from the sample, the existence of multicollinearity between the independent variables (EN Index, EC Index and SO Index). This condition was assessed by the *Pearson's Correlation*, and the results are shown in the next table.

Table 27. Pearson Correlations between the independent variables

| Correlations | | | | |
|---------------------|---------------------|----------|----------|----------|
| | | EC_Index | EN_Index | SO_Index |
| EC_Index | Pearson Correlation | 1 | ,878** | ,936** |
| | Sig. (2-tailed) | | ,000 | ,000 |
| | N | 36 | 36 | 36 |
| EN_Index | Pearson Correlation | ,878** | 1 | ,949** |
| | Sig. (2-tailed) | ,000 | | ,000 |
| | N | 36 | 36 | 36 |
| SO_Index | Pearson Correlation | ,936** | ,949** | 1 |
| | Sig. (2-tailed) | ,000 | ,000 | |
| | N | 36 | 36 | 36 |

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Elaborated by the author

As the bilateral correlations' levels are positive and higher than 0, 8, it is possible to affirm that, in general, the PSI 20 companies' behavior in terms of economic sustainability is similar of how they behave regarding social and environmental issues. There are, of course, some exceptions, like *Pharol* and *Sonae Capital*, which comply with the economic duty but fail in social and environmental commitment.

Because of the strong bilateral correlation between the independent variables, we are not mathematically able to directly test **equation 2**. As the independent variables are strongly correlated with each other, we simply need to use one of them to assess the model.

We decided to choose EN Index and SO Index to apply the linear regression model to reinforce the defended thesis. **Equation 3** and **Equation 4** represent mathematically the linear regression model for EN Index and SO Index.

Equation 3. Linear Regression Model for the EN Index

$$P_{i,j} = \beta_0 + \beta_1 EN\ Index_{i,j} + E_{i,j}$$

Where:

- $P_{i,j}$ makes reference to the CFP indicators (ROA, ROE, and ROS) for company i at year j ;
- $EN\ Index_{i,j}$ makes reference to the Environmental Index for company i at year j ;
- $i = 1, \dots, 18$;
- $j = 2014, 2015$

Equation 4. Linear Regression for the SO Index

$$P_{i,j} = \beta_0 + \beta_1 SO\ Index_{i,j} + E_{i,j}$$

Where:

- $P_{i,j}$ makes reference to the CFP indicators (ROA, ROE, and ROS) for company i at year j ;
- $SO\ Index_{i,j}$ makes reference to the Social Index for company i at year j ;
- $i = 1, \dots, 18$;
- $j = 2014, 2015$

As EN Index and SO Index are strongly correlated, the testing of the above equations must present similar results and, because of that, reinforce the final conclusions.

The next tables test the validity of the for the regression model using ROA.

Table 28. Linear Regression Model for EN Index and ROA

| | | Coefficients ^a | | | | |
|-------|-----------------|-----------------------------|------------|---------------------------|--------------|-------------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| Model | | B | Std. Error | Beta | | |
| 1 | (Constant) | -191,544 | 180,816 | | -1,059 | ,297 |
| | EN_Index | -6,405 | 7,385 | -,146 | -,867 | ,392 |
| | Year | 14,194 | 12,435 | ,193 | 1,142 | ,262 |

a. Dependent Variable: ROA

Source: Elaborated by the author

Table 29. Linear Regression Model for SO Index and ROA

| | | Coefficients ^a | | | | |
|-------|-----------------|-----------------------------|------------|---------------------------|--------------|-------------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| Model | | B | Std. Error | Beta | | |
| 1 | (Constant) | -193,775 | 180,498 | | -1,074 | ,291 |
| | SO_Index | -6,660 | 7,470 | -,150 | -,892 | ,379 |
| | Year | 14,357 | 12,420 | ,195 | 1,156 | ,256 |

a. Dependent Variable: ROA

Source: Elaborated by the author

By the analysis of **table 28** and **table 29**, it is possible to conclude that testing the linear regression between ROA and EN Index/ SO Index is statistically not significant. This is due to the significance levels considering both EN Index and SO Index as independent variables, which are $p\text{-value} = 0,392$ and $p\text{-value} = 0,379$, respectively. As $sig. > 0,05$, Environmental and Social performance are not important in explaining directly Return on Assets.

The next tables test the validity of the for the regression model using ROE.

Table 30. Linear Regression Model for EN Index and ROE

| Model | | Coefficients ^a | | | | |
|-------|-----------------|-----------------------------|------------|---------------------------|--------------|-------------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -61,580 | 59,517 | | -1,035 | ,308 |
| | EN_Index | 3,063 | 2,431 | ,211 | 1,260 | ,217 |
| | Year | 4,587 | 4,093 | ,188 | 1,121 | ,270 |

a. Dependent Variable: ROE

Source: Elaborated by the author

Table 31. Linear Regression Model for SO Index and ROE

| Model | | Coefficients ^a | | | | |
|-------|-----------------|-----------------------------|------------|---------------------------|--------------|-------------|
| | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -59,663 | 59,855 | | -,997 | ,326 |
| | SO_Index | 2,623 | 2,477 | ,178 | 1,059 | ,297 |
| | Year | 4,486 | 4,119 | ,184 | 1,089 | ,284 |

a. Dependent Variable: ROE

Source: Elaborated by the author

By the observation of **table 30** and **table 31**, it is possible to conclude that $t\text{-value} < 2$ (1, 26 and 1, 06) and $p\text{-value} > 0, 05$ (0,217 and 0,297). Because of this, the model is not statistically significant. Consequently, neither EN Index nor SO Index explains directly the performance of ROE.

The next tables test the validity of the for the regression model using ROS.

Table 32. Linear Regression Model for EN Index and ROS

| Coefficients ^a | | | | | | |
|---------------------------|-----------------|-----------------------------|------------|---------------------------|--------------|-------------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -12,546 | 28,437 | | -,441 | ,662 |
| | EN_Index | 2,246 | 1,162 | ,318 | 1,954 | ,062 |
| | Year | 1,120 | 1,956 | ,094 | ,573 | ,571 |

a. Dependent Variable: ROS

Source: Elaborated by the author

Table 33. Linear Regression Model for SO Index and ROS

| Coefficients ^a | | | | | | |
|---------------------------|-----------------|-----------------------------|------------|---------------------------|--------------|-------------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -11,932 | 28,149 | | -,424 | ,674 |
| | SO_Index | 2,447 | 1,165 | ,342 | 2,101 | ,043 |
| | Year | 1,068 | 1,937 | ,090 | ,551 | ,585 |

a. Dependent Variable: ROS

Source: Elaborated by the author

By the analysis of **table 32** and **table 33**, it is possible to affirm that, both Environmental and Social performance are correlated with ROS, with a significance level of 0, 1 and 0, 05 respectively. As the *t-value*=2 in absolute terms for both EN and SO Index, it is possible to reinforce the conclusion that the linear regression model is statistically significant.

As the value of the *Standardized Beta* is 0,318 and 0,342, the impact of EN Index and SO Index in ROS exists but is not considerable.

It is important to mention that as the independent variables (EN Index, SO Index and EC Index) are strongly correlated, the results of these correlations are extended to the EC Index. This means the increasing in environmental, social and economic sustainability will generate a positive impact on return on sales.

4.3. Discussion of the results

The evaluation of how and what Portuguese companies approach in terms of CSR forms two of the three research objectives, and allows answering the research question “*What is the level of importance PSI 20 companies give to CSR reporting and disclosure*”. The discussion relatively to this question is given bellow.

Research by Vartiak (2016) provided evidence that sustainability reporting is becoming a fundamental practice among socially responsible companies, with an increasing number of them publishing CSR reports separately. However, this reality was not verified at the PSI 20 universe. In fact, from the total of 18 companies, seven published sustainability reports considering the two years under analysis (*GALP Energia, Jerónimo Martins SGPS, EDP, EDP Renováveis, SONAE, The Navigator Company, REN*). Companies like *CTT Correios, BCP, and Mota Engil* produced the last sustainability report for 2014, and the remaining did not produce reports for any of the years, which corresponds to 44% of the sample.

The quality of the reported practices of the PSI 20 companies was evaluated based on their level of concordance with the 91 GRI's G4 specific indicators, regarding economic, environmental and social dimensions. With effect for each company and year was constructed a CS Index, with scores varying from 0 to 2.

The first conclusion is the fact that the companies that produced sustainability reports for both years also obtained the highest scores in terms of the CS Indexes. In fact, *GALP Energia, EDP, EDP Renováveis, SONAE* and *The Navigator Company* were scored with the maximum value, which means they already adopted GRI G4 guidelines to communicate with their stakeholders. This underlines they understand the benefit of reporting according to GRI's approach, which is providing a transparent, complete and balanced sustainability report (Hahn and Lulfs, 2014).

Companies like *BPI, Montepio, and SEMAPA* only provided sustainable information on the annual reports, mainly regarding philanthropic actions and scoring below average with the maximum of 0, 63 points (*Montepio* in 2014). This observation goes according to Stacchezzini *et al.* (2016) who concluded that organizations prefer to provide information about their actions rather than their performance when their social and environmental performance is poor.

NOS SGPS, Altri SGPS, Corticeira Amorim, Pharol and *Sonae Capital* were the companies that presented the lowest commitment with GRI G4 specific indicators, having consequently CS Indexes near zero. These organizations are committing risks once CSR is “no longer considered an optional activity by companies” (Berinde and Andreescu, 2015). As a consequence, Mazutis and Slawinski (2015) argue that a firm which focuses only on profit maximization is perceived as autonomous and disconnected from the society.

Jerónimo Martins was the company that had the best improvement in terms of CS Index (from 0, 68 points in 2014 to 1, 19 points in 2015). This achievement was mainly due to better disclosure in the Environmental and Social fields, more concretely in the Material, Energy, and Human Resources Management Indicators. According to Chen *et al.* (2015), this action can potentially bring positive impact for *Jerónimo Martins* in the short-term through an improvement of the organization’s competitive advantage.

The third research objective was to understand if the social performance of the Portuguese companies could be correlated or not to their financial performance. For that purpose, it was developed the following research question: “*Does corporate social performance of the PSI 20 companies’ impacts positively on their corporate financial performance?*”

In order to verify the veracity of this question, it was developed hypothesis testing, based on the previous study by Blazovich and Smith (2011) that asserts a positive impact of CSP on CFP. Therefore, the investigation hypothesis (H1) stated, “*There is a linear and positive effect of the Corporate Social Responsibility Performance on Corporate Financial Performance*”. With effect, was applied the multiple linear regression model, with ROA, ROE and ROS as dependent variables and EN Index, SO Index and EC Index as independent variables.

Due to the existence of multicollinearity between the independent variables, we were not able to test the model directly. With this, we simply tested the linear regression model using one of the independent variables and each one of the dependent variables, being able to make the same conclusions as if we were using the multiple linear regression model.

The results showed, for the period of analysis, that we cannot establish a linear relationship between CSP and CFP if this last is measured by ROE or ROA. However, CSP seems to impact positively CFP, if this last is assessed by ROS. These conclusions are in accordance with several studies, mentioned below.

Afonso *et al.* (2012) also investigated the relationship between CSP and CFP of the PSI 20 companies for the period between 2005 and 2009 and concluded the existence of a moderate impact of CSR in ROS. It is interesting to understand that a study with seven years of distance from our investigation had the same conclusions. This means that, in fact, are the customers who directly recognize the value of a sustainable company, which means their intention to buy might be positively influenced if they perceive that a company is being economical, socially and environmentally responsible.

Also, research by Radhakrishnan *et al.* (2014) and Wang & Berens (2014), provided evidence that companies which use CSR as part of their strategy, are reinforcing their reputation among the different stakeholders and consequently pursuing a good financial performance.

Concluding, **H1** was partially validated, once the Corporate Social Responsibility Performance only has a linear and positive impact on Return on Sales. From our interpretation, this happens because ROA and ROE are related with other factors that do not allow establishing a direct relationship with sustainability.

CHAPTER 5 - CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

This chapter demonstrates the main conclusions of the dissertation, not only in terms of the achievement of the objectives initially proposed, but also concerning the contributions for managers and investors. It is equally presented the limitations of the investigation as well as suggestions for future research

5.1. Major Conclusions

This study was conceptualized to understand the level of importance Portuguese companies give to CSR disclosure and reporting, and also verify if their sustainability practices have a positive impact on their financial performance, for the years of 2014 and 2015.

In terms of CSR disclosure, almost half of the PSI 20 companies do not recognize that publishing sustainability reports separately is a relevant practice, preferring to dedicate some pages of the annual reports to communicate with their stakeholders.

Concerning CSR reporting regarding GRI G4 guidelines, from the total of 18 companies, *GALP Energia*; *EDP*; *EDP Renováveis*; *SONAE*, and *The Navigator Company* were considered **very responsible**, achieving the CS Index of 2 points for both years, which corresponds to the maximum possible value. On the opposite side, the companies that showed the **lowest commitment with CSR** were *NOS*; *SEMAPA*; *Altri*; *Corticeira Amorim*; *Pharol*, and *Sonae Capital*, presenting CS Indexes below 0, 39 points for both years. It is also possible to identify some **responsible** companies, with CS Indexes between 0, 75 and 1, 28. The responsible companies are *Jerónimo Martins* in 2015; *REN* in 2014; *BCP* in both years; *CTT Correios* in 2015, and *Mota Engil* in 2014. With a classification below average but not the lowest in terms of CSR, the following companies were considered to be **little responsible**: *BPI* and *Montepio* for both years; *Jerónimo Martins* for 2014, and *Mota Engil* for 2015. The **best improvements** in CSR reporting were registered for *Jerónimo Martins* and *REN*. On the other side, the **biggest drops** concerning the CS Index occurred with *CTT Correios* and *Mota Engil*.

It is possible to infer that the PSI 20 companies' approaching to CSR differs significantly among them. From the analysis made to the financial and sustainability reports, it is possible to understand that, in general, these organizations adopted one of three types of behavior (1) Comply totally with the environmental, social and economic duties; (2) Do not understand the real meaning of CSR/Sustainability, approaching it by reference only to philanthropic actions, like volunteering and donations to community and, (3) Make the only reference regarding economic obligations.

Regarding the existence of a positive influence of sustainability practices in financial performance, the results are not enough to justify a significant association between CSP and CFP. However, the findings suggest the existence of a positive linear impact of CSP on ROS, which means the engagement of companies in responsible initiatives, will reflect a positive perception by the customers, which can become more willing to buy their products and services.

5.2. Managerial Implications

This dissertation aims to provide managers and investors useful information in order to make accurate decisions regarding the practice of CSR.

For managers, we strongly recommend them to be constantly evaluating and improving their sustainability strategies. This idea is reinforced by the findings of our investigation, which show that customers seem to reward economical, environmentally and socially sustainable companies. Consequently, managers must be able to implement good sustainability practices, once they will impact positively the customer's perception of the organization. That positive perception will contribute to generating a good reputation among customers, and ultimately, improve the financial performance. This recommendation goes in accordance with research by Turker (2015) that suggests a long-term oriented CSR strategy will allow the creation of a strong relationship with the stakeholder's network, in which customers are included.

We also hope to provide socially responsible investors support for their decision-making. Consequently, even if CSP does not impact directly ROA and ROE, it has a direct and positive impact on ROS, which means customers seem to be alert to CSR. In line with these findings, we recommend investors to learn from the customers in terms of understanding how the companies perform regarding sustainability, before making accurate portfolio decisions.

5.3. Limitations of the study

The study only has in consideration listed companies. It would be equally interesting to approach other non-listed companies with similar dimension, in order to explore better the social panorama in Portugal.

The subjectivity associated with the content analysis regarding the PSI 20 companies' information is a limitation that could be surpassed having more than one researcher evaluating the data of the investigation.

GRI guidelines as a way to measure CSR represent some limitations according to Tschopp and Huefner (2014). The authors state this framework is too rule-based, too costly to gather and encompasses indicators that are not useful for stakeholders.

Other studies testing the relationship between CSP and CFP use larger periods of analysis. As this research occurs in a biannual base, it can compromise the reliability of the study.

5.4. Future Research

Research by Faria (2012) indicates the business sector is a relevant explanatory variable for the quality of reporting. Thus, the PSI 20 Index is constituted by companies representing 12 different sectors. An interesting avenue for further research is, for example, to apply the same investigation methodology comparing the different industries.

Future work could also measure CSR using another practical framework, in order to increase the accuracy of the scores obtained for the PSI 20 companies' sustainable efforts.

Future investigation could also study ROA and ROE components and understand how they can be associated with sustainability, once we were not able to find a direct relation between them.

Finally, as ROS only translate short-term performance (Boaventura *et al.* 2012), the future investigation can use market-based financial indicators, such as *Tobin's Q* and *Risk of the firm*, to be possible a comparative analysis.

CHAPTER 6 – REFERENCES

6.1. Monographs

Albrecht, K. 2000. *Corporate Radar: Tracking the Forces that are Shaping your Business*. New York: American Management Association

António, J. N., Rosa, A. A., Teixeira, F. S., Cândido, C. F., Rodrigues, J. M. 2012. *Estratégia Organizacional: Do Mercado à Ética*. Lisboa: Escolar Editora.

Cesar, A. C. M. 2014. *A Responsabilidade Social Empresarial e o Retorno dos Investimentos Socialmente Responsáveis*. Professional Master Dissertation in Law and Management. Universidade Católica Portuguesa: 1-61.

Chandler, A. D. Jr. 1962. *Strategy and Structure: Chapters in the History of the American Industrial Enterprise*. Cambridge, MA: MIT Press.

Faria, F. 2012. *Um Índice de Responsabilidade Social Empresarial para a Realidade*

Portuguesa. Master Dissertation in Corporate Finance. ESTG. Instituto Politécnico de Leiria: 1-92.

Freeman, E. 1984. *Strategic Management: A stakeholder Approach*. Cambridge: Cambridge University Press.

Hendrikse, J. & Hendrikse, L. 2008 *Business Governance Handbook: Principles and Practice*: 64. Cape Town: Juta & Co Lda.

Hitt, M. A., Freeman, E. R and Harrison, J. S. 2005. *Handbook of Strategic Management*: 81. Main Street: Blackwell Publishing Lda.

Haines, S. G., McCoy, K. 1995. *Sustaining High Performance: The Strategic Transformation to a Customer-Focused Learning Organization*: 7-8. USA: St. Lucie Press.

Lawrence, A. T., Weber, J. 2014. *Business and Society: Stakeholders, Ethics, and Public Policy (14th edition)*: 6-20. New York: Mc Graw Hill.

Marcus, A. A. 1993. *Business & Society: Ethics, Government and the World Economy*: 27-32. Boston: Irwin.

McElroy, M. W., Engelen, J. M. L. 2012. *Corporate Sustainability Management* (First Edition): 50 ; 60. Oxon: Earthscan.

Pettigrew, A., Thomas, H., Whittington, R. 2002. *Handbook of Strategy and Management*: 376-379 Bonhill Street, London: Sage Publications.

Preston, L. E. and Post, J.E. 1975. *Private Management and Public Policy*. Englewood Cliffs, NJ: Prentice Hall.

Reich, R. 2008. *Supercapitalism: the transformation of business, democracy, and everyday life*. New York: Vintage Books.

Vogel, D. 2005. *The market for virtue: the potential and limits of corporate social responsibility*. Washington, DC: Brookings Institution Press.

6.2. Articles and Journals

Alonso-Almeida M. M., Llach J. and Marimon F. 2014. A Closer Look at the 'Global Reporting Initiative' Sustainability Reporting as a Tool to Implement Environmental and Social Policies: A Worldwide Sector Analysis. *Corporate Social Responsibility and Environmental Management*, 21: 318–336

Afonso, S., Odete, P., Monte, A. P. 2012. Responsabilidade Social Empresarial das Empresas Cotadas Pertencentes ao PSI 20: Análise Evolutiva e Relação com o Desempenho Económico-Financeiro. *AECA*, 1-20

Barnea, A. & Rubin, A. 2010. Corporate Social Responsibility as a Conflict Between Shareholders. *Journal of Business Ethics*, 97: 71-86

Mihai, B. & Nicoleta, A. 2015. Reporting Corporate Social Responsibility According to GRI Standards. *Economic Science Series*, 24(1): 17-23

Blazovich, J. & Smith M. L. 2011. Ethical Corporate Citizenship: Does it Pay? *Research on Professional Responsibility and Ethics in Accounting*, 15: 127-163

Boaventura, J. M., Silva, R. S., Mello, R. B. 2012. Corporate Financial Performance and Corporate Social Performance: Methodological Development and the Theoretical Contribution of Empirical Studies. *Foundation for Research Support of the State of São Paulo*, 23(60): 232-245

Bonson, E., Bednárová, M. 2014. CSR Reporting Practices of Eurozone Companies. *Spanish Accounting Review*, 18 (2): 182–193

Branco, M., Rodrigues, L. 2008. Factors Influencing Social Responsibility Disclosure by Portuguese Companies. *Journal of Business Ethics*, 83(4): 685-701

Brown H. S., de Jong M., Levy D. L. 2009. Building Institutions based on Information Disclosure: Lessons from GRI's Sustainability Reporting. *Journal of Cleaner Production*, 17(6): 571–580.

Brundtland, G. H. (ed) 1987. *Our Common Future: The World Commission on Environment and Development*, Oxford University Press: 366

Carroll, A. B. 1991. The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders. *Business Horizons*, 34(4): 39-48

Charlo, M. J., Moya, I. and Muñoz, A. M. 2015. Sustainable Development and Corporate Financial Performance: A Study Based on the FTSE4Good IBEX Index. *Business Strategy and the Environment*, 24(4): 277-288

- Chen, L., Feldmann, A. and Tang, O. 2015. The Relationship between disclosures of Corporate Social Performance: Evidences from GRI Reports in Manufacturing Industry. *International Journal of Production Economics*, 170: 445–456
- Cheng, B., Ioannou, I., Serafeim, G. 2012. Corporate Social Responsibility and Access to Finance. *Strategic Management Journal*, 35 (1): 1-23
- Chernev, A. & Blair, S. 2015. Doing Well by Doing Good: The Benevolent Halo of Corporate Social Responsibility. *Journal of Consumer Research*, 41(6): 1412-1425
- Chetty, S., Naidoo, R. and Seetharam, Y. 2015. The Impact of Corporate Social Responsibility on Firms' Financial Performance in South Africa. *Contemporary Economics*, 9(2): 193-214
- Chiang, B., Pelham, A., Katsuo, Y. 2015. Environmental Costs, Social Responsibility and Corporate Financial Performance: A Closer Examination of Japanese Companies. *American Journal of Business Research*, 8(1): 39-56
- Christofi A., Christofi P., Sisaye S. 2012. Corporate Sustainability: Historical Development and Reporting Practices. *Management Research Review*, 35(2): 157–172
- Conde, M. F. T., Vázquez, D. G., Marques, M. C. C. 2011. Evolução da Responsabilidade Social Empresarial na Península Ibérica. *OCC*:1-29
- Cornett, M. M., Erhemjamts, O., Tehranjan, H. 2016. Greed or Good Deeds: An Examination of the Relation between Corporate Social Responsibility and the Financial Performance of U.S. Commercial Banks around the Financial Crisis. *Journal of Banking and Finance*, 70: 137-159
- Engert, S. & Baumgartner, R, J. 2016. Corporate Sustainability Strategy - Bridging the Gap Between Formulation and Implementation. *Journal of Cleaner Production*, 113: 822-834
- Erhemjamts, O., Li, Q. & Venkateswaran, A. 2012. Corporate Social Responsibility and its Impact on Firms' Investment Policy, Organizational Structure, and Performance. *Journal of Business Ethics*, 118(2): 395-412
- Falkenberg, J. & Brunsael, P. 2011. Corporate Social Responsibility: A Strategic Advantage or a Strategic Necessity? *Springer Science+Business Media*, 99: 9-16
- Fernandez-Feijoo, B., Ruiz, S. and Romero, S. 2014. Commitment to Corporate social Responsibility measured through Global Reporting Initiative Reporting: Factors affecting the behavior of companies. *Journal of Cleaner Production*, 81: 244-254
- Ferraz, F. A. D., Vazquez, D. G. 2016. Measurement tool to assess the relationship between corporate social responsibility, training practices and business performance. *Journal of Cleaner Production*. 129: 659-672
- Fonseca, L. M. & Ferro, R. L. 2016. Does it pay to be social responsible? Portuguese SMEs feedback. *OmniaScience*, 12(2): 487-505
- Friedman M. 1970. The Social Responsibility of Business it to Increase its Profits. *The New York Times Magazine*, 13: 122-124

- Germain, J. L. 2013. Strategic Planning: The Basics. *Chronicle of Kinesiology & Physical Education in Higher Education*, 24(1): 27-31
- Hahn, R. and Lulfs, R. 2014. Legitimizing Negative Aspects in GRI-Oriented Sustainability Reporting: A Qualitative Analysis of Corporate Disclosure Strategies. *Journal of Business Ethics*, 123: 401–420
- Herciu, M. 2016. Iso 26000: An Integrative Approach of Corporate Social Responsibility. *Studies in Business and Economics*, 11(1): 73-79
- Hollensbe, E., Wookey, C., Loughlin, H., George, G., & Nichols, V. 2014. Organizations with Purpose. *Academy of Management Journal*, 57(5): 1227–1234
- Isa, S. M. 2012. Corporate Social Responsibility: What can we learn from the Stakeholders? *International Congress on Interdisciplinary Business and Social Sciences*, 65: 327-337
- Isaksson, L. E. & Woodside A. G. 2016. Modeling firm heterogeneity in Corporate Social Performance and Financial Performance. *Journal of Business Research*, 69(9): 3285-3314
- Jankalova, M. 2016. Approaches to the evaluation of Corporate Social Responsibility. *Procedia Economics and Finance*, 39: 580 – 587
- Kohl, M. W. 2012. Every Christian Institution Needs a Strategic Plan. *International Congregational Journal*, 11(2): 19-39
- Kristensen, P. 2004. The DPSIR Framework. *National Environmental Research Institute*, Denmark: 1-10
- Kuo, T. C., Kremer, G. E. O., Phuong, N. T. and Hsu, C. 2016. Motivations and Barriers for Corporate Social Responsibility Reporting: Evidence from the Airline Industry. *Journal of Air Transport Management*, 57: 184-195
- Levy D. L., Szejnwald Brown H., de Jong M. 2010. The Contested Politics of Corporate Governance: The Case of the Global Reporting Initiative. *Business & Society*, 49(1): 88–115
- Lock, I. & Seele P. 2016. The credibility of CSR (corporate social responsibility) reports in Europe. Evidence from a quantitative content analysis in 11 countries. *Journal of Cleaner Production*, 122: 186-200
- Lu, W. & Taylor, M. E. 2016. Which Factors Moderate the Relationship between Sustainability Performance and Financial Performance? A Meta-Analysis Study. *Journal of International Accounting Research*, 15(1): 1-16
- Madorran, C. & Garcia, T. 2014. Corporate Social Responsibility and Financial Performance: The Spanish Case. *Revista de Administração de Empresas*, 56(1): 20-28
- Malik, M. 2015. Value-Enhancing Capabilities of CSR: A Brief Review of Contemporary Literature. *Journal Business Ethics*, 127(2): 419-438
- Mansell, S. 2013. Shareholder Theory and Kant's 'Duty of Beneficence'. *Journal of Business Ethics*, 117(3): 583-599

- Marimon F., Casadesús M., Heras I. 2010. Certification Intensity Level of the Leading Nations in ISO 9000 and ISO 14000 Standards. *International Journal of Quality & Reliability Management*, 27(9): 1002–1020
- Martinuzzi, A. & Krumay, B. 2013. The Good, the Bad, and the Successful – How Corporate Social Responsibility Leads to Competitive Advantage and Organizational Transformation. *Routeledge*, 13(4): 424-443
- Mazutis, D. & Slawinski, N. 2014. Reconnecting Business and Society: Perceptions of Authenticity in Corporate Social Responsibility. *Journal of Business Ethics*, 131(1): 137-150
- Nwidobie, B. M. 2014. Corporate Social Responsibility Costs and Corporate Financial Performances of Listed Firms in Nigeria. *Journal of Advanced Research in Management*, 5(1): 33-40
- Oh, W. & Park, S. 2015. The Relationship Between Corporate Social Responsibility and Corporate Financial Performance in Korea. *Routledge*, 51: 85-94
- Orlitzky, M. 2013. Corporate Social Responsibility, Noise, and Stock Market Volatility. *The Academy of Business Perspectives*, 27(3): 238-254
- Papulova, Z. & Gazova, A. 2015. Role of Strategic Analysis in Strategic Decision-Making, *Procedia Economics and Finance*, 39: 571-579
- Porter, M. E. 1991. Towards a Dynamic Theory of Strategy. *Strategic Management Journal*, 12: 95-117
- Porter, M. and Kramer, M. 2006. Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*, 84(12): 1-14
- Prado-Lorenzo J. M., Gallego-Alvarez I., Garcia-Sanchez I.M. 2009. Stakeholder Engagement and Corporate Social Responsibility Reporting: The Ownership Structure Effect. *Corporate Social Responsibility and Environmental Management*, 16: 94–107
- Radhakrishnana, S., Chitraob, P. and Nagendra, A. 2014. Corporate Social Responsibility (CSR) in Market Driven Environment. *Symbiosis Institute of Management Studies*, 11: 68-75
- Rasche A. 2009. Toward a Model to Compare and Analyze Accountability Standards: The Case of the UN Global Compact. *Corporate Social Responsibility and Environmental Management*, 16(4): 192–205
- Roca L. C. and Searcy C. 2012. An Analysis of Indicators Disclosed in Corporate Sustainability Reports. *Journal of Cleaner Production*, 20(1): 103–108.
- Santoso, A. H. & Feliana, Y. K. 2014. The Association Between Corporate Social Responsibility And Corporate Financial Performance. *Social and Environmental Accounting*, 8(2): 82-103
- Schuz, M. 2012. Sustainable Corporate Responsibility -The Foundation of Successful Business in the New Millennium. *Central European Business Review*, 1(2): 9-14

- Siew, R. 2015. A review of corporate sustainability reporting tools (SRTs). *Journal of Environmental Management*, 164: 180-196
- Simionescu, L. N. 2015. Relationship between Corporate Social Responsibility and Sustainable Development. *Internal Auditing & Risk Management, Bucharest*, 38(1): 179-190
- Skouloudis A., Evangelinos K. and Kourmousis F. 2009. Development of an Evaluation Methodology for Triple Bottom Line Reports Using International Standards on Reporting. *Environmental Management*, 44(2): 298–311
- Slager R. 2014. SRI Indices and Responsible Corporate Behavior: A Study of the FTSE4Good Index. *Business & Society*, 54(3): 386–405
- Stacchezzini, R., Melloni, G. and Lai, A. 2016. Sustainability Management and Reporting: The role of Integrated Reporting for communicating Corporate Sustainability Management. *Journal of Cleaner Production*, 136: 102-110
- Sunley, R. 2011. Managing Business Ethics: Straight Talk About How To Do It Right. *International Journal of Management Education*, 9(2): 83-84
- Trudel, R. & Cotte, J. 2009. Does It Pay to be Good? *MIT Sloan Management Review, Massachusetts*, 50(2): 61-68
- Tsang S., Welford R., Brown M. 2009. Reporting on Community Investment. *Corporate Social Responsibility and Environmental Management*, 16(3): 123–136
- Tschopp D. and Huefner R. J. 2015. Comparing the Evolution of CSR Reporting to that of Financial Reporting. *Journal of Business Ethics*, 127(3): 565-577
- Turker, D. 2015. Contrasting Instrumental Views on Corporate Social Responsibility: Short-term versus Long-term Profit Orientation Approach. *Procedia – Social and Behavioral Sciences, Turkey*, 207: 568-576
- Vartiak, L. 2016. CSR reporting of companies on a global scale. *Procedia Economics and Finance*, 39: 176 – 183
- Visser, W. 2010. The Age of Responsibility: CSR 2.0 and the New DNA of Business. *Journal of Business Systems, Governance and Ethics*, 5(3): 7-22
- Wang, H., Tong, L., Riki, T. & Gerard, G. 2016. Corporate Social Responsibility: An Overview and New Research Directions. *Academy of Management*, 59(2): 534-544
- Wang, Y. & Berens G. 2015. The Impact of Four Types of Corporate Social Performance on Reputation and Financial Performance. *Journal of Business Ethics*, 131(2): 337-359
- Williams, O. 2014. CSR: Will it Change the World? Hope for the Future: An Emerging Logic in Business Practice. *University of Notre Dame, USA*, (53): 9-26
- Wilburn, K. & Wilburn, R. 2014. The Double Bottom line: Profit and Social Benefit. *Business Horizons, USA*, 57(1): 11-20

Zenovia, P. C & Borza, A. 2013. New Perspectives on Strategic Management Process. *Economic Science Series, Faculty of Economics, Romania*, 22(1): 1573-1580

6.3. Web-Based Research

Altri, *Annual Report 2014*, accessed at <http://www.altri.pt/~media/Files/A/Altri/reports/portuguese/2014/Altri2014PT.pdf> on June, 15 2016

Altri, *Annual Report 2015*, accessed at http://www.altri.pt/~media/Files/A/Altri/reports/portuguese/2015/ALTRI_2015_AGA_PT.pdf on June, 15 2016

BCP, *Annual Report 2014*, accessed at <https://bo.millenniumvideos.net/documents/kqyDAQdhPBVJRUIh.pdf> on June, 18 2016

BCP, *Annual Report 2015*, accessed at <http://ind.millenniumbcp.pt/pt/Institucional/investidores/Documents/RelatorioContas/2015/RCBCP2015PT.pdf> on June, 18 2016

BCP, *Sustainability Report 2014*, accessed at <https://bo.millenniumvideos.net/documents/XfzphMxCDXbFNY4.pdf> on June, 18 2016

BPI, *Annual Report 2014*, accessed at <http://bpi.bancobpi.pt/storage/download/ficheiro.54C95FF4-1295-42C6-A4F3-BBC3C15A35F2.1.pt.asp?id=9D173409-C77F-4865-BF8B-EC2FFB80EBBF> on June, 2 2016

BPI, *Annual Report 2015*, accessed at http://www.bancobpi.pt/content/conn/UCM/uuid/dDocName:PR_WCS01_UCM01006853 on June, 2 2016

Código das Sociedades Comerciais, accessed at http://www.irn.mj.pt/IRN/sections/irn/legislacao/docs-legislacao/codigo-das-sociedades/downloadFile/file/Codigo_das_Sociedades_Comerciais.pdf?nocache=1339670517.82 on April, 23 2016

Corticeira Amorim, *Annual Report 2014*, accessed at http://www.amorim.com/xms/files/Investidores/5_Relatorio_e_Contas/REL_CON_2014_web.pdf on June, 5 2016

Corticeira Amorim, *Annual Report 2015*, accessed at http://www.amorim.com/xms/files/Investidores/5_Relatorio_e_Contas/CASGPS_R_C_Consolidado_2015.pdf on June, 5 2016

CTT, *Annual Report 2014*, accessed at http://www.ctt.pt/contentAsset/raw-data/622f34f5-391a-4f64-ab3b-8f8119e23715/ficheiro/bf56b45b-4df3-4409-88ca-025d9c1705bf/export/CTT_RC2014_PT.pdf on June, 15 2016

CTT, *Annual Report 2015*, accessed at http://www.ctt.pt/contentAsset/raw-data/6d012b6a-2214-46ef-a7d6-da7f7e1b9acb/ficheiro/e9cb4240-0ea2-44bc-b8cb-4f48ea67677e/export/Volume%20I_Relatorio_de_Gestao.pdf on June, 15 2016

CTT, *Sustainability Report 2014*, accessed at https://www.ctt.pt/contentAsset/raw-data/7b9bc878-fdba-44e8-849a-b816e5ba1cfe/ficheiro/f0234beb-11e5-442d-b0e4-3ac010a0cd5d/export/relatorio_pt2016.pdf on June, 15 2016

Down Jones Sustainability Index, *Index Overview*, accessed at <http://www.djindexes.com/sustainability/> on May, 20 2016

EDP, *Annual Report 2014*, accessed at http://www.edp.pt/pt/investidores/publicacoes/relatorioecontas/2014/Relatrio%20e%20Contas%202014/EDP_Relatorio_Contas_2014_WEB.pdf on June, 28 2016

EDP, *Annual Report 2015*, accessed at <http://www.edp.pt/pt/investidores/publicacoes/relatorioecontas/2015/Relatrios%202015/Relat%C3%B3rio%20e%20Contas%202015.pdf> on June, 28 2016

EDP, *Sustainability Report 2014*, accessed at http://www.edp.pt/pt/sustentabilidade/PublicacoesRelatorios/EDPDocuments/EDP_Relatorio_Social_2014.pdf on June, 28 2016

EDP, *Sustainability Report 2015*, accessed at http://www.edp.pt/pt/aedp/sobreaedp/recursos humanos/Rel_social/Pages/RelatorioSocial.aspx on June, 28 2016

EDP Renováveis, *Annual Report 2014*, accessed at http://2014annualreport.edprenovaveis.pt/pdf/RC2014_EN_abril14.pdf on June, 28 2016

EDP Renováveis, *Annual Report 2015*, accessed at http://2015annualreport.edprenovaveis.pt/pdf/RC2015_EDPR_EN.pdf on June, 28 2016

EDP Renováveis, *Sustainability Report 2014*, accessed at http://www.edp.pt/pt/sustentabilidade/PublicacoesRelatorios/EDPDocuments/EDP_Relatorio_Social_2014.pdf on June, 28 2016

EDP Renováveis, *Sustainability Report 2015*, accessed at http://www.edp.pt/pt/aedp/sobreaedp/recursos humanos/Rel_social/Pages/RelatorioSocial.aspx on June, 28 2016

Euronext Lisbon, *PSI 20 Composition*, accessed at <http://www.bolsadelisboa.com.pt/products/indices/PTING0200002-XLIS/market-information> on July, 2 2016

European Commission, *EU directives concerning CSR*, accessed at http://ec.europa.eu/finance/company-reporting/non-financial-reporting/index_en.htm#legal-framework on May, 20 2016

Forest Stewardship Council, *About*, accessed at <https://ic.fsc.org/en/about-fsc> on May, 20 2016

GALP, *Annual Report 2014*, accessed at http://www.galpennergia.com/EN/Investidor/Relatorios-e-resultados/relatorios-anuais/Documents/Annual_report_accounts_2014.pdf on June, 15 2016

GALP, *Annual Report 2015*, accessed at http://www.galpennergia.com/EN/Investidor/Relatorios-e-resultados/relatorios-anuais/Documents/Annual_Report_and_Accounts_2015.pdf on June, 15 2016

GALP, *Annual Sustainability Report 2014*, accessed at http://www.galpennergia.com/PT/Media/Publicacoes/Documents/Relatorio_sustentabilidade_2014.pdf on July, 13 2016

GALP, *Annual Sustainability Report 2015*, accessed at http://www.galpennergia.com/PT/investidor/Relatorios-e-resultados/relatorios-anuais/Documents/Relatorio_de_Sustentabilidade_2015.pdf on July, 13 2016

GRI, *GRI Sustainability Reporting Guidelines*, accessed at <https://www.globalreporting.org/resourcelibrary/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf> on June, 30 2016

Jerónimo Martins, *Annual Report 2014*, accessed at <http://www.jeronimomartins.pt/media/618854/relatoriocontasjeronimomartins2014.pdf> on May, 24 2016

Jerónimo Martins, *Annual Report 2015*, accessed at <http://www.jeronimomartins.pt/media/665173/relatoriocontasjeronimomartins2015.pdf> on May, 24 2016

Jerónimo Martins, *Annual Sustainability Report 2014*, accessed at http://www.jeronimomartins.pt/media/647660/relat_rio_rc_2014.pdf May, 24 2016

Jerónimo Martins, *Sustainability Report 2015*, accessed at http://www.jeronimomartins.pt/media/672855/jm_relatorio_responsabilidade_corporativa_2015_pt.pdf May, 24 2016

Montepio, *Annual Report 2014*, accessed at https://www.montepio.pt/iwov-resources/SitePublico/documentos/pt_PT/informacao-financeira/relatorio-contas-anual-cemg-2014.pdf on June, 18 2016

Montepio, *Annual Report 2015*, accessed at https://www.montepio.pt/iwov-resources/SitePublico/documentos/pt_PT/informacao-financeira/relatorio-contas-anual-cemg-2015.pdf on June, 18 2016

Mota Engil, *Annual Report 2014*, accessed at [http://www.mota-engil.pt/Investidores/Informacoes-Financeiras/\(offset\)/8](http://www.mota-engil.pt/Investidores/Informacoes-Financeiras/(offset)/8) on June, 5 2016

Mota Engil, *Annual Report 2015*, accessed at <http://www.mota-engil.pt/Investidores/Informacoes-Financeiras> on June, 5 2016

Mota Engil, *Sustainability Report 2014*, accessed at <http://www.mota-engil.pt/Sustentabilidade/Caderno-de-Sustentabilidade> on June, 5 2016

NOS, *Annual Report 2014*, accessed at http://www.nos.pt/institucional/Documents/Reportes%20Financeiros/NOS_RC_2014_ENG.pdf on July, 13 2016

NOS, *Annual Report 2015*, accessed at https://www.nos.pt/institucional/Documents/Reportes%20Financeiros/RC_NOS2015_OnPT.pdf on July, 13 2016

Pharol, *Annual Report 2014*, accessed at http://conteudos.pharol.pt/Documents/PT/Relatorios/2015/04_Abril/RCCon2014pt.pdf on July, 13 2016

Pharol, *Annual Report 2015*, accessed at http://conteudos.pharol.pt/Documents/PT/Relatorios/2016/04_Abril/RCCon2015_pt.pdf on July, 13 2016

REN, *Annual Report 2014*, accessed at <http://relatorioecontas2014.ren.pt/> on July, 5 2016

REN, *Annual Report 2015*, accessed at <http://relatorioecontas2015.ren.pt/> on July, 5 2016

REN, *Sustainability Report 2014*, accessed at http://www.ren.pt/en-GB/sustentabilidade/abordagem_da_ren/ on July, 5 2016

REN, *Sustainability Report 2015*, accessed at http://www.ren.pt/en-GB/sustentabilidade/abordagem_da_ren/ on July, 5 2016

SEMAPA, *Annual Report 2014*, accessed at http://www.semapa.pt/sites/default/files/demonstracoes/rc_semapa_2014_pt_0.pdf on May 20, 2016

SEMAPA, *Annual Report 2015*, accessed at <http://gruposemapap.pt/rc/2015/pt/#50/z> on May 20, 2016

SONAE, *Annual Report 2014*, accessed at https://www.sonae.pt/fotos/dados_fin/20150609_rs_pt_vf_1530928268571125d786d86.pdf on May 20, 2016

SONAE, *Annual Report 2015*, accessed at https://www.sonae.pt/fotos/dados_fin/mr_2015_pt_20777761435729fd5391cca.pdf on May 20, 2016

SONAE, *Sustainability Report 2014*, accessed at https://www.sonae.pt/fotos/publicacoes/20150629_rs_pt_vf_5_1590932128571a8005a5c21.pdf on May 20, 2016

SONAE, *Sustainability Report 2015*, accessed at https://www.sonae.pt/fotos/publicacoes/sr_2015_pt_1208614561572a381d786a8.pdf on May 20, 2016

The CSR in PSI 20 companies and its impact in their financial performance

SONAE Capital, *Annual Report 2014*, accessed at <http://www.sonaecapital.pt/images/resourcesuser/SONCRC2014APROVPT.pdf> on June 25, 2016

SONAE Capital, *Annual Report 2015*, accessed at <http://www.sonaecapital.pt/images/resourcesuser/pdfs/SONCRCFY15PT.pdf> on June 25, 2016

The Navigator Company, *Annual Report 2014*, accessed at http://www.thenavigatorcompany.com/var/ezdemo_site/storage/original/application/d36ff612e9a0abdfc92eedc84bffc031.pdf on July 3, 2016

The Navigator Company, *Annual Report 2015*, accessed at http://www.thenavigatorcompany.com/var/ezdemo_site/storage/original/application/4df6c301fee91b712d53f8027a2dd134.pdf on July 3, 2016

The Navigator Company, *Sustainability Report 2014-2015*, accessed at http://www.thenavigatorcompany.com/var/ezdemo_site/storage/original/application/6e27db4cab09920dca9b67d91f1ddade.pdf on July 3, 2016

CHAPTER 7 - APPENDICES

List of Appendices

| | |
|---|-----|
| 1. Data Collection | |
| 1.1. PSI 20 companies' terminology | 86 |
| 1.2. Classifications of the Economic Index for 2014 | 87 |
| 1.3. Classifications of the Environmental Index for 2014 (part I) | 88 |
| 1.4. Classifications of the Environmental Index for 2014 (part II) | 89 |
| 1.5. Classifications of the Environmental Index for 2014 (part III)..... | 90 |
| 1.6. Classifications of the Social Index for 2014 (part I)..... | 91 |
| 1.7. Classifications of the Social Index for 2014 (part II) | 92 |
| 1.8. Classifications of the Social Index for 2014 (part III) | 93 |
| 1.9. Classifications of the Social Index for 2014 (part IV)..... | 94 |
| 1.10. Classifications of the Economic Index for 2015 | 95 |
| 1.11. Classifications of the Environmental Index for 2015 (part I) | 96 |
| 1.12. Classifications of the Environmental Index for 2015 (part II) | 97 |
| 1.13. Classifications of the Environmental Index for 2015 (part III)..... | 98 |
| 1.14. Classifications of the Social Index for 2015 (part I)..... | 99 |
| 1.15. Classifications of the Social Index for 2015 (part II) | 100 |
| 1.16. Classifications of the Social Index for 2015 (part III) | 101 |
| 1.17. Classifications of the Social Index for 2015 (part IV)..... | 102 |

1.1.PSI 20 companies' terminology

| PSI 20 company | Terminology |
|-----------------------|-------------|
| GALP Energia | A |
| Jerónimo Martins SGPS | B |
| EDP | C |
| NOS SGPS | D |
| EDP Renováveis | E |
| BCP | F |
| CTT Correios | G |
| SONAE | H |
| The Navigator Company | I |
| REN | J |
| Banco BPI | L |
| SEMAPA | M |
| Altri SGPS | N |
| Corticeira Amorim | O |
| Mota Engil | P |
| Montepio | Q |
| Pharol | R |
| Sonae Capital | S |

1.2.Classifications of the Economic Index for 2014

| Economic Index 2014 | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EC1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| G4-EC2 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 0 |
| G4-EC3 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 0 | 0 | 2 | 2 | 1 | 1 |
| G4-EC4 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |
| G4-EC5 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 |
| G4-EC6 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| G4-EC7 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| G4-EC8 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-EC9 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Average | 2,00 | 0,78 | 2,00 | 0,67 | 2,00 | 0,78 | 2,00 | 2,00 | 2,00 | 1,56 | 0,67 | 0,67 | 0,44 | 0,22 | 1,33 | 1,22 | 0,33 | 0,56 |

The CSR in PSI 20 companies and its impact in their financial performance

1.3. Classifications of the Environmental Index for 2014 (part I)

| Environmental Index 2014 (part I) | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EN1 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 1 | 2 | 0 | 0 | 0 |
| G4-EN2 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-EN3 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 1 | 0 | 0 |
| G4-EN4 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 0 | 1 | 0 | 2 | 1 | 0 | 0 |
| G4-EN5 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| G4-EN6 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 1 | 0 | 0 |
| G4-EN7 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-EN8 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 1 | 0 | 0 |
| G4-EN9 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

1.4.Classifications of the Environmental Index for 2014 (part II)

| Environmental Index 2014 (part II) | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EN10 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN11 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-EN12 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN13 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-EN14 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN15 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-EN16 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-EN17 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-EN18 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-EN19 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |

1.5. Classifications of the Environmental Index for 2014 (part III)

| Environmental Index 2014 (part III) | | | | | | | | | | | | | | | | | | |
|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EN20 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN21 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| G4-EN22 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN23 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN24 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN25 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN26 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-EN27 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-EN28 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN29 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| G4-EN30 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-EN31 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| G4-EN32 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 |
| G4-EN33 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-EN34 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Average | 2,00 | 0,79 | 2,00 | 0,00 | 2,00 | 0,85 | 2,00 | 2,00 | 2,00 | 1,00 | 0,88 | 0,00 | 0,21 | 0,26 | 1,06 | 0,21 | 0,00 | 0,00 |

1.6.Classifications of the Social Index for 2014 (part I)

| Social Index 2014 (part I) | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-LA1 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 |
| G4-LA2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 1 |
| G4-LA3 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-LA4 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| G4-LA5 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 |
| G4-LA6 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-LA7 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-LA8 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| G4-LA9 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 |

1.7. Classifications of the Social Index for 2014 (part II)

| Social Index 2014 (part II) | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-LA10 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 0 |
| G4-LA11 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| G4-LA12 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| G4-LA13 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-LA14 | 2 | 1 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| G4-LA15 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| G4-LA16 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-HR1 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| G4-HR2 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-HR3 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

1.8.Classifications of the Social Index for 2014 (part III)

| Social Index 2014 (part III) | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-HR4 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| G4-HR5 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-HR6 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR7 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR8 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-HR9 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| G4-HR10 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 |
| G4-HR11 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR12 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-SO1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 0 | 0 |
| G4-SO2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 0 | 0 |
| G4-SO3 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| G4-SO4 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| G4-SO5 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 |
| G4-SO6 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

1.9.Classifications of the Social Index for 2014 (part IV)

| Social Index 2014 (part IV) | | | | | | | | | | | | | | | | | | |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-SO7 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO8 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| G4-SO9 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| G4-SO10 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-SO11 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-PR1 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-PR2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-PR3 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 |
| G4-PR4 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-PR5 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 |
| G4-PR6 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-PR7 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| G4-PR8 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 |
| G4-PR9 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Average | 2,00 | 0,48 | 2,00 | 0,06 | 2,00 | 0,63 | 2,00 | 2,00 | 2,00 | 0,88 | 0,17 | 0,06 | 0,15 | 0,27 | 1,46 | 0,46 | 0,00 | 0,13 |
| CS Index | 2,00 | 0,68 | 2,00 | 0,24 | 2,00 | 0,75 | 2,00 | 2,00 | 2,00 | 1,14 | 0,57 | 0,24 | 0,27 | 0,25 | 1,28 | 0,63 | 0,11 | 0,23 |

1.10. Classifications of the Economic Index for 2015

| Economic Index 2015 | | | | | | | | | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EC1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| G4-EC2 | 2 | 2 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | 1 | 2 | 0 | 2 | 1 | 0 | 0 |
| G4-EC3 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 0 | 2 | 2 | 1 | 1 |
| G4-EC4 | 2 | 0 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 1 |
| G4-EC5 | 2 | 1 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 |
| G4-EC6 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| G4-EC7 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| G4-EC8 | 2 | 0 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-EC9 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Average | 2,00 | 1,11 | 2,00 | 0,44 | 2,00 | 0,67 | 1,22 | 2,00 | 2,00 | 2,00 | 0,67 | 0,67 | 0,78 | 0,22 | 1,33 | 1,22 | 0,33 | 0,56 |

The CSR in PSI 20 companies and its impact in their financial performance

1.11. Classifications of the Environmental Index for 2015 (part I)

| Environmental Index 2015 (part I) | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EN1 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-EN2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-EN3 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| G4-EN4 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| G4-EN5 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN6 | 2 | 2 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| G4-EN7 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| G4-EN8 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 0 | 0 |
| G4-EN9 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

The CSR in PSI 20 companies and its impact in their financial performance

1.12. Classifications of the Environmental Index for 2015 (part II)

| Environmental Index 2015 (part II) | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EN10 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN11 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN12 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN13 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-EN14 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN15 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN16 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN17 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN18 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN19 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

1.13. Classifications of the Environmental Index for 2015 (part III)

| Environmental Index 2015 (part III) | | | | | | | | | | | | | | | | | | |
|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-EN20 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN21 | 2 | 2 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| G4-EN22 | 2 | 2 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| G4-EN23 | 2 | 2 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| G4-EN24 | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN25 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN26 | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| G4-EN27 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN28 | 2 | 2 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN29 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN30 | 2 | 2 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN31 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN32 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-EN33 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-EN34 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Average | 2,00 | 1,53 | 2,00 | 0,00 | 2,00 | 0,71 | 0,32 | 2,00 | 2,00 | 2,00 | 0,88 | 0,00 | 0,32 | 0,26 | 0,00 | 0,00 | 0,00 | 0,00 |

The CSR in PSI 20 companies and its impact in their financial performance

1.14. Classifications of the Social Index for 2015 (part I)

| Social Index 2015 (part I) | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-LA1 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 2 | 0 | 2 | 0 | 1 |
| G4-LA2 | 2 | 2 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 1 |
| G4-LA3 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-LA4 | 2 | 1 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| G4-LA5 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| G4-LA6 | 2 | 2 | 2 | 0 | 2 | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-LA7 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-LA8 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-LA9 | 2 | 2 | 2 | 0 | 2 | 2 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |

1.15. Classifications of the Social Index for 2015 (part II)

| Social Index 2015 (part II) | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-LA10 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 |
| G4-LA11 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 2 | 0 | 0 |
| G4-LA12 | 2 | 0 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| G4-LA13 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| G4-LA14 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-LA15 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-LA16 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR1 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR2 | 2 | 2 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR3 | 2 | 1 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

The CSR in PSI 20 companies and its impact in their financial performance

1.16. Classifications of the Social Index for 2015 (part III)

| Social Index 2015 (part III) | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-HR4 | 2 | 2 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| G4-HR5 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR6 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR7 | 2 | 0 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR8 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR9 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR10 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-HR11 | 2 | 1 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-HR12 | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO1 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 0 | 2 | 0 | 0 |
| G4-SO2 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 0 | 2 | 0 | 0 |
| G4-SO3 | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO4 | 2 | 2 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO5 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO6 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

The CSR in PSI 20 companies and its impact in their financial performance

1.17. Classifications of the Social Index for 2015 (part IV)

| Social Index 2015 (part IV) | | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Indicator | A | B | C | D | E | F | G | H | I | J | L | M | N | O | P | Q | R | S |
| G4-SO7 | 2 | 0 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO8 | 2 | 1 | 2 | 0 | 2 | 0 | 1 | 2 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO9 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-SO10 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-SO11 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-PR1 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-PR2 | 2 | 1 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-PR3 | 2 | 1 | 2 | 0 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| G4-PR4 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-PR5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 |
| G4-PR6 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-PR7 | 2 | 1 | 2 | 0 | 2 | 1 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-PR8 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G4-PR9 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Average | 2,00 | 0,92 | 2,00 | 0,13 | 2,00 | 0,73 | 1,02 | 2,00 | 2,00 | 2,00 | 0,17 | 0,06 | 0,06 | 0,27 | 0,15 | 0,42 | 0,00 | 0,06 |
| CS Index | 2,00 | 1,19 | 2,00 | 0,19 | 2,00 | 0,70 | 0,86 | 2,00 | 2,00 | 2,00 | 0,57 | 0,24 | 0,39 | 0,25 | 0,49 | 0,55 | 0,11 | 0,21 |