

CORPORATE SOCIAL RESPONSIBILITY COMMUNICATION IN THE LOGISTICS INDUSTRY: THE HOME COUNTRY ROLE

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Dissertation

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Resumo

Os valores culturais influenciam-nos diariamente. Moldam OS nossos

comportamentos, com semelhanças ou diferenças em relação às sociedades vizinhas. A

forma como as empresas comunicam a sua Responsabilidade Social Empresarial (RSE) nos

seus websites, não é exceção a esta influência de valores culturais.

Estudos anteriores têm observado os determinantes para a divulgação de informação

e comunicação de RSE. No entanto, os resultados têm sido inconsistentes quanto à relação

dos determinantes com a comunicação de RSE e a sua respetiva direção. Por exemplo,

quando se recorre às dimensões culturais de Hofstede, alguns autores consideram que o

individualismo tem uma influência negativa na comunicação de RSE, enquanto outros

divergem desta conclusão.

Este estudo pretende preencher o fosso na literatura. Nomeadamente, entender

como os valores culturais influenciam a comunicação de RSE nos websites das empresas de

logística. Bem como, observar os efeitos do tamanho da empresa e das características do país

de origem na comunicação de RSE.

A metodologia trata-se de um estudo exploratório da comunicação de RSE nos

websites de 109 empresas de logística. Os resultados demonstram que estas têm

comportamentos semelhantes ou diferentes na sua comunicação de RSE explicados pelos

valores culturais. Algumas sociedades são mais preocupadas com a comunicação de RSE do

que outras, seja como um todo ou relativamente a certos assuntos ou canais utilizados.

Quanto às dimensões culturais de Hofstede, só a aversão à incerteza e a orientação a longo

prazo têm uma relação significativa com a comunicação de RSE. O tamanho da empresa

revela ter uma relação positiva com a comunicação de RSE. Contrariamente à fraqueza

cultural, que demonstra ser um travão. Finalmente, outras caraterísticas do país de origem,

globalização e instituições, não apresentam uma relação significativa com a comunicação de

RSE.

Palavras-chave: responsabilidade social empresarial, comunicação, logística,

cultura.

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Abstract

Cultural values influence us in daily life. They shape behaviours with similarities or

differences to neighbouring societies. The way firms communicate their Corporate Social

Responsibility (CSR) on websites is no exception to this cultural values influence.

Previous studies have been looking at the determinants of information disclosure and

CSR communication. However, findings are inconsistent about which determinants

influence CSR communication and their respective direction. For instance, when using

Hofstede's cultural dimensions to analyse how cultural values influence the disclosure of

information, some authors consider that individualism has a negative influence, while others

diverge from this conclusion.

The objectives of this study are to bridge the gap found in previous literature.

Namely, understanding how cultural values influence CSR communication on logistics firms

websites, as well as checking how firm size and home country characteristics affect logistics

firms CSR communication.

The methodology is an exploratory analysis of CSR communication on corporate

websites of 109 logistics firms. Findings show that logistics firms have similar or different

behaviours towards CSR communication shaped by culture. Some societies are more

concerned with CSR communication than others, either as a whole or relative to certain

issues, or even with the channels used to do it. Among Hofstede's cultural dimensions, only

uncertainty avoidance and long-term orientation have a significant relationship with CSR

communication. As for firm size, it is shown to have a positive influence on CSR

communication through websites. Finally, cultural weakness reveals to hold back CSR

communication, as others home country characteristics – globalisation and institutions – do

not present a significant relationship with CSR communication.

Keywords: corporate social responsibility, communication, logistics, culture.

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1. Introduction

In the era of globalization, international trade started to pressure companies to be more competitive if they wanted to succeed. The need to specialize in core business activities, the growing complexity of distribution channels along with the outsourcing trend, gave space for logistics firms to settle and propose their services in the market (Selviaridis & Spring, 2007).

The international awareness of multinationals activity along with global warming concern made Corporate Social Responsibility (CSR) communication a tool that companies need to follow to keep business running and the logistics sector did not escape to this phenomenon (Peng, Dashdeleg & Chih, 2012; Piecyk & Björklund, 2015).

Cultural values influence us in daily life. They shape behaviours with similarities or with differences regarding neighbouring societies. The way firms communicate their CSR on websites is no exception to this cultural stimulus. For instance, if a nation puts great value in nature and recycling, it is expected that a company in this context will consider environmental aspects in its business communication. Or if a country has a strong tradition of legislature or reporting, this will be reflected in a corporation. Culture can also influence issue focus, since some companies give environmental features more relevance than the social ones and viceversa. Additionally, societies can value differently the alternative CSR communication' channels. Some may prefer websites and reports, others press releases and certifications (Garcia-Sanchez, Cuadrado-Ballesteros & Frias-Aceituno, 2016; Hofstede, Hofstede & Minkov, 2010; Kim & Ferguson, 2014; Seele & Lock, 2015; Tarquinio, Raucci & Benedetti, 2018).

Previous studies have been looking at the determinants of information disclosure and CSR communication. Although, findings are inconsistent about which determinants influence the most CSR communication, some are recurrent such as cultural dimensions, firm size and financial performance. For instance, when using Hofstede's cultural dimensions to analyse how culture influence the disclosure of information, some authors consider that individualism has a negative influence, while others diverge from this conclusion (Aggarwal & Goodell, 2013; Ali, Frynas & Mahmood, 2017; Garcia-Sanchez et al., 2016; Gray, 1988; Ho, Wang & Vitell, 2012; Orij, 2010; Peng et al., 2012; Ringov & Zollo, 2007).

Since logistics firms are the bound between different corporations, they are an important player in the promotion of sustainability through the supply chain and

counterparts. Therefore, it is relevant to understand how culture influences CSR communication in logistics. This could be the starting point in the sustainability process of some of the corporations involved. For example, if logistics firms only purchase from suppliers that do not comply with sweatshop labour, then employees working conditions could improve. Moreover, globalisation is here to stay which means logistics firms will continue to be primordial to international trade and its development. CSR has been receiving considerable attention from academics, companies, and other parties such as customers or suppliers, becoming a competitive advantage that eventually all businesses will adopt (Carter & Jennings, 2002; Markley & Davis, 2007; Piecyk & Björklund, 2015).

The objectives of this study are to understand the home country role in CSR communication of logistics firms, bridging a gap in previous literature. Namely, understanding how culture influences CSR communication on websites. As well as checking how firm size and home country characteristics affect logistics firms CSR communication.

The methodology is based on an exploratory analysis of CSR communication on logistics firms' corporate websites, as the goal is to observe written content of CSR communication. The prominence given to CSR, the number of issues covered, the channels used to communicate CSR, and the website extension are considered to build an index, that is attributed to each logistics firm to measure its CSR communication. The control variables include Hofstede's six version of cultural dimensions, Total Assets in 2017, KOF Globalisation Index 2016, Institutions score from Global Innovation Index in 2018 and cultural weakness.

After this introduction, there are four main sections: literature review, methodology, results and analysis, and conclusions.

2. Literature Review

2.1. Logistics and Corporate Social Responsibility

In the era of globalization, international trade started to pressure companies to be more competitive in order to survive and to succeed. The need to specialize in core business along with the outsourcing trend, gave space for logistics firms to grow and propose their services to a wider market (Selviaridis & Spring, 2007).

To understand what a logistics firm is, it is essential to look at the definition of logistics. The Council of Logistics Management (1998) (as cited in Rutner & Langley, 2000, p.73) states that:

"Logistics is that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from point of origin to point of consumption in order to meet customers' requirements".

Piecyk & Björklund (2015) refer to logistics firms as logistics service providers and highlight the difficulty to characterize them. In fact, this type of companies can have different characteristics in terms of size, assets, set of services provided, goods carried, contracts, and geographical scope of business. However, logistics firms serve more than one customer's need, and operate various geographical points.

The international awareness of multinationals activity, along with the global warming concern, turned CSR and sustainability daily concepts that executives need to consider (Peng et al., 2012; Piecyk & Björklund, 2015).

CSR is thought in many different ways. Some advocate that CSR implies that a company must consider social and ethical aspects of all stakeholders/parts involved, for instance, employees, customers, communities, suppliers, regulators as well as society's future generations (Maloni & Brown, 2006).

Others prefer to focus on its four pillars, also known as the CSR pyramid, namely: economic, legal, ethical and philantropic. Economic responsibility is the foundation that enables others to grow. Legal considerations are a company complying with the law. Ethics is doing the right thing with less harm possible. And, at the top, philanthropic considerations occurs through community improvements and development (Carroll, 1991).

Furthermore, a sustainable firm is one that manages to deliver economic value, while overlaping environmental and social performance. This is also called the Triple Bottom Line (Markley & Davis, 2007).

It is possible to group firms consciousness as reactive, proactive and value-seeking (Björklund, Forslund & Isaksson, 2016). Reactive consciousness refers to companies that simply follow sustainable regulations and institutions, complying with the minimum, without investing in extra performance (Closs, Speier, & Meacham, 2011). Proactive consciousness is when enterprises recognize sustainability has a strategic relevance, improving it with suppliers, promoting new laws and participating in communities. Finally, value-seeking is the highest degree of consciousness, integrating sustainability activities in the business strategy and adding value. It is turning sustainability a key element in all aspects, for instance, innovating products or long-term investments (Björklund et al., 2016).

Logistics did not escape to the rise of CSR and studies have been focusing on its merger. According to Seuring & Müller (2008), CSR logistics is the consideration of economic, environmental and social dimensions, originated from stakeholders requirements, through the supply chain. It involves the flow of material, information, capital and collaboration between businesses.

A broader definition refers to CSR logistics as the voluntary inclusion of social, economic and environmental matters into companies' organization to successfully manage activities related to material, information and capital. This includes procurement, production, distribution, stakeholders demands, competitiveness and flexibility while achieving profit (Dubey, Gunasekaran, Papadopoulos, Childe, Shibin & Wamba, 2017).

A similar term is green logistics. It regards environmental impact in the management of operations in a supply chain, at the production, warehousing and distribution level (Delgado & Branco, 2013).

Carter & Jennings (2002) amalgamate CSR with logistics and obtain the notion of Logistics Social Responsibility that defends the inclusion of diversity, environment, ethics, human rights, philanthropy, and safety notions in logistics firms' activities, namely in purchasing, transportation, and warehousing.

2.2. CSR Logistics: new concepts, channels and drivers

The value-seeking consciousness of some logistics firms along with the concern of academics and stakeholders resulted in the appearance of new concepts, channels and drivers in the CSR logistics management. These are presented bellow.

Green design is the conception or redesign of products and services in the aim of minimizing the negative impact on environment, society and health, considering the use of ecologic materials and parts. Green design is also concerned with the final stage of a product life cycle, searching for alternatives to dispose of it either by recycling and reusing it (Delgado & Branco, 2013).

Green procurement relates to the purchase of raw materials, products, or packing that respects the environment and helps to comply with the CSR goals of the logistics firm (Delgado & Branco, 2013).

As for green operations, the focus is on effective and sustainable processes, namely in warehousing and transportation. Safe equipment and vehicles maintenance to avoid fuel leakage are examples of green operations practices (Carter & Jennings, 2002; Delgado & Branco, 2013).

Green warehousing and green product design enhance sustainability performance, addressing directly environmental issues, like minimizing energy usage and investing in innovation (Dubey et al., 2017).

Circular economy advocates for voluntary restorative industrial systems, underlying that the planet is a closed loop and that the amount of exhausted resources is equivalent to the amount of waste produced (Genovese, Acquaye, Figueroa & Koh, 2017; Seuring & Müller, 2008).

Reverse logistics is a concept from CSR logistics, adapted from the circular economy. Embracing product design, operations and product end-of-life, reverse logistics aims for the maximization of value added over the entire life cycle through value recovery and its second purpose (Genovese et al., 2017). Reverse logistics can take the form of a closed-loop, when products go back from customers to the original manufacturer, so they can be reused. As for an open-loop, it occurs when materials are recovered by an entity other than the one that produced the goods initially (French & LaForge, 2006).

Studies have highlighted some drivers that promote CSR logistics.

Organizational culture and individual values are seen as primordial for the application and development of sustainable practices inside a corporation. Top management also plays

an important role in the promotion and implementation of CSR logistics, since employees may need to be informed of the advantages. Liability through the perception of responsibility with the community and environment is another driver. Moreover, regulation influences CSR logistics since firms' need to comply with the law (Carter & Jennings, 2002).

Dubey et al. (2017), through a literature review of CSR logistics, emphasised the CSR drivers that appeared the most. It is possible to observe an overlap with those reported by other authors, namely organizational culture, individual values, top management, liability and regulation.

The internal pressure made by employees to their corporation to contribute to nature conservation is another driver presented by Dubey et al. (2017). To maintain personnel motivation and loyalty, there is the need to consider labor sustainability. For example, through proper working conditions and green spaces' facilities (Dubey et al., 2017).

However, sometimes employee engagement in CSR may be hard to obtain due to different individual habbits and daily routines. Top management is then responsible for implementing and be committed to a clear corporate strategy. In fact, a proper tactic for the coordination of operations and teams is fundamental. (Dubey et al., 2017).

Considering these previous drivers, Carter & Jennings (2002) developed a framework of CSR logistics' activities, that can help logistics firms in their sustainable process. For instance, in the purchasing department, purchasing from environmentally conscious suppliers, helping to develop local suppliers or certifying that materials acquired are not related to child labor. As for transportation, Carter & Jennings (2002) suggest paying adequate wages, avoiding bribes offered to port officials to accelerate shipments or overweight vehicles. The warehousing's involvement in sustainable logistics comprises behaviours like donation of excess inventory to charity, reverse logistics, and proper packaging (Carter & Jennings, 2002).

Another channel for CSR logistics is socially responsible marketing. Through advertising campaigns, product labeling and characteristics, it has a positive impact on the corporation image. The need to enhance public relations or economic value motivate the adoption of socially responsible marketing (Carter & Jennings, 2002).

Strategic supplier collaboration in planning, forecasting and replenishment have shown great benefits in CSR logistics. Improvement in commercialization, access to strategic tools, stimulation of investment, as well as waste and disposal costs reduction are some examples. Collaboration can also occur in systems development like lower energy consumption and clean technologies. Which leads to another driver, the enabling of ecologic technologies. This is explained by their recyclable, adaptable, as well as clean characteristics and the fact that they do not harm the environment and societies (Dubey et al., 2017).

Audits and standardization are useful tools to quantify CSR performance. Indeed, the search for better results brings continuous improvements in the green systems and structure of corporations (Dubey et al., 2017).

Finally, logistics optimization is the reason for logistics firms to adopt CSR. The adoption of renewable energies, alternative fuels, reverse logistics, the optimization of speed, loading and type of transports illustrate practices that contribute to increase the profit margins (Dubey et al., 2017).

2.3. The importance of CSR Logistics

In the era of globalization, international trade started to pressure companies to be more competitive if they wanted to succeed. The need to specialize in core business activities, the growing complexity of distribution channels and the outsourcing trend gave space for logistics firms to settle in the market (Selviaridis & Spring, 2007).

To understand the relevance of logistics firms, one can look at the data released from Global Justice Now (2016) and observe that Deutsche Post DHL Group had yearly revenues larger than those of Hong Kong, 68.358 and 63.720 million USD, respectively. A similar situation happens with UPS and Hungary, and FedEx and Philippines.

Furthermore, the sector has a significant impact on the environment and society, which some firms often try to cover. Logistics is the first and major cause of greenhouse gases emissions from firms' operations. For instance, Walmart, a multinational retailer, stated that 90% of its total emissions are a result of its logistic operations (Carbon Disclosure Project; Dubey et al., 2017; Financial Times, 2010). At a social level, it has been discovered that Deutsche Post DHL Group and FedEx hide an estimated workforce of 401.000 and 209.000, respectively, in the Asia-Pacific region (International Trade Union Confederation, 2016).

As mentioned previously, logistics firms arose from the outsourcing tendency of logistics activities from other companies (Selviaridis & Spring, 2007). Logistics outsourcing presents multiple reasons. For example, the complexity of logistics and its distribution channels, the need to focus in the core business, the specifities related to product, process,

and network management (Rao & Young, 1994; Selviaridis & Spring, 2007). Indeed, logistics firms have various clients which enable economies of scale in labour, equipment, and capacity and cost spreading (Bardi & Tracey, 1991; van Damme & Ploos van Amstel, 1996). Other advantages from logistics outsourcing are the decrease in warehousing needs, lead times, verified damage along with upgrading in customer service and information (Bhatnagar & Viswanathan, 2000).

Since logistics firms are linking different corporations, they have a big influence on the promotion of CSR through the supply chain and counterparts (Piecyk & Björklund, 2015). By spreading their values and green measures, logistics firms can be the starting point of the CSR processes of the companies they are involved with. For example, if purchasing only from suppliers that comply with specific CSR requirements, logistics firms are making firms switching to eco-friendly processes (Carter & Jennings, 2002).

Another reason to focus on CSR logistics is that the increasing demand for logistics services intensified competition between logistics firms. In fact, investment in sustainability represents a competitive advantage that attracts clients and adds value. The environmental and social issues are important to stakeholders, who expect corporations to include them in their business activity and in CSR communication (Genovese et al., 2017; Maloni & Brown, 2006; Markley & Davis, 2007).

Finally, some studies have observed that firms with CSR practices react better to economic recessions and market flutuations than traditional ones. Economic stability from CSR could prevent some companies' insolvencies, explaining the need to focus in CSR (de Brito, Carbone & Blanquart, 2008; Dubey et al., 2017; Xia & Li-Ping Tang, 2011).

2.4. CSR Communication

The consideration of various perspectives from stakeholders and corporations, makes it hard for companies to communicate CSR. Often, some enterprises are reticent about communicating CSR, either due to timidity or are oblivious to its importance. However, as mentioned previously, CSR represents a competitive advantage and if firms choose to not communicate, they will not collect its benefits (Coombs & Holladay, 2013; Genovese et al., 2017; Markley & Davis, 2007; Schmeltz, 2012).

Stakeholders include users, providers, influencers, governance, among others, and thus the firm addresses various audiences in terms of CSR communication. Stakeholders can

be characterized as opinion-leaders, for instance, if they are legislators, investors, business press, non-governmental organizations or public figures. Or, as the general public, in the case of consumers, local communities or employees. It is expected that the first kind will be more proactive in the search for CSR information (Du, Bhattacharya & Sen, 2010).

For stakeholders there are two types of reasons for firms to communicate CSR. Extrinsic, when it is attributed to profitability seeking. Or intrinsic, when it is seen as genuine action (Du et al., 2010).

The increasing stakeholders' awareness of how enterprises work resulted in a decline of trust in the provenience and application of profits. Stakeholders may believe that extrinsic and self-serving reasons are guiding a corporation's CSR, if it does not communicate or does not do it properly. Greenwashing practice is also accountable for scepticism. Greenwashing is the act of announcing green concern without adopting green actions. For example, uttering the reduction of paper consumption in office without adopting measures for this purpose or proving it (Carbone, Moatti & Vinzi, 2012; Schmeltz, 2012). The challenge is to balance awareness and attributions made by stakeholders, so as learning on a firm's CSR, they believe initiatives reflect the Tripple Bottom Line considerations — environment, society and business (Du et al., 2010).

In this sense, some factors should be highlighted in CSR communication to increase its effectiveness. For example, CSR commitment to an issue, what is dedicated, for how long and its consistency. CSR impact is also important along with the report of factual information on actual benefits generated to society, avoiding bragging attitudes. CSR purposes should be explained so stakeholders understand both social and business motivations. Emphasizing CSR fit between a cause and the company's core is also relevant. For instance, a diapper firm fighting children subnutrition (Du et al., 2010).

Schmeltz (2012) shows that there are different reasons for firms to engage in CSR and its communication. In fact, it increases buying intentions, promotes loyalty, brand ambassador behaviours, builds stronger bounds/identification between a corporation and its stakeholders.

Various CSR communication's channels can be used by logistics firms. Examples are CSR website, reports, brochure, blogs, press releases, social media, newsletter, TV, advertising, newspapers, CSR strategy paper, internal compliance handbook, code of conduct, roundtable and dialogue with stakeholders. Some channels are seen as more

credible than others and they can be classified as published or unpublished, but also as controlled or uncontrolled (Kim & Ferguson, 2014; Seele & Lock, 2015).

The internet is responsible for the creation of new channels that were presented previously. Nowadays, with the development of information and communication technologies, the internet is accessible to the majority of the stakeholders, which enable efficient CSR communication. Several advantages occur from internet use. For starters, the reach of a wide scope of stakeholders at a lower cost and faster than traditional means. Besides, the internet is associated with transparency and availability of information. If a logistics firm tries to deceive its CSR engagement, it will be confronted with its online communication and uncovered. Finally, the interactivity through Web 2.0, the official appearance of a corporate document as well as the visual design of the website are aspects that the internet provide and stakeholders value (Andrikopoulos, Merika, Triantafyllou & Merikas, 2014; Coombs & Holladay, 2013; Eimhjellen, 2014; Schmeltz, 2012).

2.5. CSR Communication: relevant studies and determinants

As mentioned previously, some companies use their official website for CSR communication (CSRC) and reports, enabling everyone's access, analysis, and comparison (Du et al., 2010). Studies have been observing the determinants that influence the degree of disclosure of information and CSR communication by corporations. As Table 1 shows, the ones that are the most highlighted by the literature are cultural dimensions, firm size, and financial performance.

Focusing on environmental disclosure, Kouloukoui, Sant'Anna, Gomes, Marinho, Jong, Kiperstok & Torres (2019) analyse information of 67 firms listed on the Brazilian Stock Exchange. Based on the Global Reporting Initiative (GRI), they found that firm size, financial performance, and country of origin have a positive impact on climate reporting.

Adnan, Hay & van Staden (2018), adopting GRI guidelines, observe CSR communication on corporate websites, annual and sustainable reports of 203 firms in China, Malaysia, India and the United Kingdom. Findings show that private ownership results in the form of board committees, as public governance in the quality of CSR communication. Moreover, national culture is related to resistance to CSR communication but private ownership can moderate this influence.

Authors	Year	CSRC	Not CSRC	CSR measure	Independent variables	CSRC determinants	
Kouloukoui et al.	2019	Yes		Content analysis using keywords in sustainability reports	Size (total assets), Creditor Power, Country of Origin, Level of Pollution, Financial Performance	Firm size, Financial Performance, Country of Origin, Level of Indebtedness	
Adnan et al.	2018	Yes		Content analysis of annual reports and websites, considering quality (score on each CSR item based on GRI) and quantity (sentences)	National Culture, Corporate Governance, CSR assurance, Big-4 auditor, Subsidiaries oversea, Size, Listed Status	Cultural Dimensions, Public vs Private Governance	
García-Meca et al.	2018	Yes		Scorecard construction based on utility and comparability of CSR reports, using GRI Guidelines and EIRIS database	Board Independence and Gender Diversity, Size, Cultural Weakness, ROA, Loans, Country, Year	Independent Directors, Gender Diversity, Cultural Dimensions	
Platonova et al.	2018	Yes		CSRD independent variable: Construct of CSRD index-based content analysis of annual reports		Financial Performance, Organizational Culture	
Ali et al.	2017	Yes		Content analysis of research articles on CSR disclosure determinants		Firm Size, Industry Sector, Profit, Corporate Governance, Cultural, Political and Social Factors, Developed: shareholders, Developing: External Forces	
Cabeza-García et al.	2017	Yes		Content analysis index of annual reports/CSR based on GRI Guidelines	Family Control, Size, Profitability, Leverage, Industry	Family Firm, Foreign Investors	
Lim	2017	Yes		Level of disclosure based on the application of GRI Guidelines on CSR reports	Size, Industry, Third-party Verification, GRI Socialization, Legal Tradition, Democracy, Economic Development, Economic Globalization, World Society Ties	Field, National and Global factors, External pressure	
Syed & Butt	2017	Yes		Content analysis of annual reports, construct of checklist based on previous studies	Family Shares, Size (total assets), Profitability, Leverage, Age, Industry	Family ownership, industry type, firm size, risk (leverage)	
Garcia-Sanchez et al.	2016	Yes		Level of disclosure based on the number of GRI indicators on CSR reports	Individualism, Masculinity, Power Distance, Uncertainty Avoidance, Long-Term Orientation, Stakeholder Legal Protection, Ownership Concentration, Institutional	Cultural Dimensions, Legal System, Ownership Structure	
Aggarwal & Goodell	2013		Transparency in Corporate Reporting	Transparency measured through Transparency in Corporate Reporting Index	Leverage, Market Value, ROA, Profitability, Industry, Uncertainty Avoidance, Power Distance, Individualism, Masculinity	Cultural Dimensions, Legal System, Institutions, Financial Leverage	
Bowrin	2013	Yes		CSR index construction based on content analysis of annual reports and web-based media	National Culture, Importance of Public Equity Financing, Organizational Culture, Financial Performance, Size, Industry, Director Independence, Gender Diversity, Foreign Influence	Firm Size, Industry Affiliation, Foreign Influence, Organizational Culture	

Authors	Year	CSRC	Not CSRC	CSR measure	Independent variables	CSRC determinants
Ho et al.	2012		Corporate Social Performance	Level of CSR Performance base on Innovest ratings	Size, Financial Performance, Growth Rate, Leverage, R&D and Marketing-related Expenses, Industry, Power Distance, Individualism, Masculinity, Uncertainty Avoidance	Cultural Dimensions, Economic Development
Peng et al.	2012		CSR Engagement	CSR engagement measured by DJSI index Size, Net Income per Employee, Industry, Country Economic Development		Cultural Dimensions
Insch	2008	Yes		Content analysis of corporate websites considering environmental issues, interactivity, stakeholder audiences and attitudes towards them		
Wanderley et al.	2008	Yes		Content analysis of corporate websites considering the disclosure of ethic codes, CSR reports, social projects and results, partnerships, following framework, corporate value, CSR promeninence	Country of origin, industry	Country of origin, industry
Farache et al.	2007	Yes		Content analysis of corporate websites considering the disclosure of ethic codes, CSR reports, social projects and results, partnerships, following framework, corporate value		Country of Operations
Filho & Wanderley	2007	Yes		Content analysis of corporate websites considering the disclosure of ethic codes, CSR reports, social projects and results, partnerships, following framework, corporate value		
Ringov & Zollo	2007		Corporate Social Performance	Corporate Social Performance measured based on IVA score on Innovest Group dataset, obtained from publicly available corporate data	Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Firm Size and Growth, Financial Performance, Leverage, Productivity and Globalisation	Cultural Dimensions
Chaple & Moon	2005	Yes		Content analysis of corporate websites considering the extent, coverage and traditional vs embeded CSR	FDI, Export, Firm's International Status, Economic and Social Development of Country	National Business Systems, Globalisation, Country of Operations

Source: Author's own elaboration

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Table 1 - Relevant studies on information disclosure and CSR communication

García-Meca, Uribe-Bohórquez & Cuadrado-Ballesteros (2018) also focus on banks, measuring CSR communication via the GRI and the Ethical Investment Research Service (EIRIS) score. The authors obtain a positive influence of board composed of independent directors and gender diversity on CSR communication. However, this positive impact can be reduced when located in countries with a weak cultural system.

Through the study of CSR reports of Islamic banks, Platonova, Asutay, Dixon & Mohammad (2018), using their own content analysis, find that there is a positive relationship between CSR communication as well as actual and future financial performance. Furthermore, banks' organizational culture, namely mission and vision, is another positive determinant presented.

Using a survey and content analysis of 76 empirical papers, Ali et al. (2017) find that firm size, industry sector, profitability, corporate governance, political, social and cultural factors are determinants in CSR communication. Additionally, it seems that there are differences between developed and developing countries. Indeed, in the first case, considerations of specific stakeholders – as regulators, shareholders, environmentalists or media – have a big impact on the information disclosed. In the second case, CSR communication is more driven by external forces as international buyers, foreign investors, international regulators and media.

Cabeza-García, Sacristán-Navarro & Gómez-Ansón (2017) analyse a sample of nonfinancial listed corporations from Spain. Results suggest that family ownership is a negative determinant of CSR communication. Nevertheless, the existence of a significant external shareholder can enhance CSR communication and mitigate family effects, which is amplified in the case of a foreign investor.

Lim (2017) analyse quantitative data of reports of 50 countries, helped by GRI guidelines. Field-level factors are highlighted and influence information disclosure in different directions. Also, external entity verification enhances communication and exposition. Finally, national factors are more relevant in the communication process of developed countries, while in developing countries it is influenced by global factors.

Syed & Butt (2017) study CSR through CSR communication, reports of directors and note of corporate governance from Pakistan non-financial listed firms, using their own content analysis. They find that family ownership, industry sector and firm size promote CSR communication.

Garcia-Sanchez et al. (2016) examine the impact of the institutional macro context on firms' CSR communication in 20 countries. Outcomes show that strong normative and regulative institutions as well as civil law legal environment are important determinants of CSR communication. Authors also study Hofstede's cultural dimensions, which influence in different directions.

Aggarwal & Goodell (2013) use the Transparency in Corporate Reporting index to observe the factors that influence the biggest multinational. Results show that higher financial leverage and national GDP, common law origin, liberal markets, finance along with technology industries are negatively related to CSR communication. In terms of cultural dimensions, individualism is the only of the Hofstede's four dimensions with a positive impact in transparency.

The research on CSR communication of Bowrin (2013) is founded in 55 listed Caribbean companies. Its conclusions are that firm size, industry affiliation, foreign influence and organizational culture increase the amount of CSR communicated.

Looking at CSR processes of firms from 49 countries, Ho et al. (2012) conclude that higher economic development promotes CSR. Also, European corporations exhibit a better CSR performance than North American and Asian ones. In regards to cultural dimensions, the authors observe that only individualism has a negative relationship with CSR reporting, contradicting Aggarwal & Goodell (2013).

Peng et al. (2012) merelly study the cultural influence on CSR engagement, measured with the Dow Jones Sustainability Index. Based on Hofstede's cultural dimensions, they demonstrate that individualism and uncertainty avoidance have a positive relationship with CSR communication, but negative for masculinity and power distance.

Orij (2010) also only focus on cultural dimensions, observing CSR level from Sustainalytics dataset of 600 corporations from different sectors and countries. Its conclusions are that individualism and uncertainty avoidance have a positive relationship with CSR communication. As this is negative for masculinity and power distance.

Insch (2008) look at corporate websites of 18 New Zealand's companies, from the electricity and gas retail sector, to understand which environmental issues and stakeholder groups is CSR directed to. Findings show that instrumental reformist moral position is present in firms' communication. However, there is a lack of interactive features for dialogue.

Wanderley, Lucian, Farache & Filho (2008) analyse CSR communication on official webpages of 127 corporations from emerging countries. Results demonstrate that country

of origin and industry sector have a significant influence on CSR communication, the first one being stronger than the second one.

Farache, Wanderley, Perks & Filho (2007) compare CSR communication on corporate websites of french firms in their home country and in Brazil. Through a content analysis, they conclude that country of operations influence CSR communication, as french websites have more and better information quality than brazilian ones.

Filho & Wanderley (2007) compare CSR communication of electricity and supermarket sectors in Brazil, through websites content analysis. Interestingly, there are no significant differences between both industries.

Ringov & Zollo (2007) focus their research on culture. Through the Innovest Group database, that includes social and environmental performance ratings of companies from 34 countries, the authors find that some cultural dimensions of Hofstede have a negative influence.

Chapple & Moon (2005) through website content analysis of 50 Asian companies observe CSR communication. Outcomes show that globalisation promotes the disclosure of information, reflecting more the profile of the country of operations than the country of origin.

2.6. CSR Communication: relevant studies on cultural influence

Studies have been observing the determinants that influence the degree of disclosure of information and CSR communication. As seen in Table 1, cultural dimensions are one of the determinants most highlighted by the literature. However, academics have not been consistent in their findings (Table 2). In this work, one of the aims is to fill this gap and understand how culture influences CSR communication.

Hofstede's cultural dimensions have been used for decades in international management research, including CSR communication. The analysis of IBM's employee in the professional environment resulted in a national culture model, composed of four dimensions later developed into six dimensions. Each one characterises a cultural preference in a specific matter when compared with another culture. The six dimensions are: individualism, power distance, uncertainty avoidance, masculinity, long-term orientation and indulgence (Hofstede et al., 2010).

An individualist (IDV) society occurs when people care about their own or immediate family interest. While in collectivism, people have important in-group bounds, considering extended family and communities in daily life (Hofstede et al., 2010).

The power distance dimension (PDI) is related with the degree of inequalities' acceptance in society, regarding wealth and authority (Hofstede et al., 2010).

Uncertainty avoidance (UAI) correlates to the extent to which a society deals with the unknow future. When the uncertainty is accepted, members tend to take more risks, to be more tolerant and feel more secure (Hofstede et al., 2010).

In masculine (MAS) communities professional achievements, competition, making money and pretension are values that dominate. Whereas in the feminine ones, relationships are more important than money, helping others and preserving the environment are cherished (Hofstede et al., 2010).

A culture with long-term orientation (LTO) has pragmatic values to be ready for future problems or prepare expected rewards. As in short-term orientation, population gives more relevance to tradition, face preservation and conservation of social norms (Hofstede et al., 2010).

Finally, an indulgent (IND) society is the one that promotes relatively free gratification and satisfaction of natural desires, like enjoyment and fun. But when in a restraint one, this kind of behaviours do not fit in social norms (Hofstede et al., 2010).

As mentioned before, previous studies have not been consistent in their findings on cultural influence. This is confirmed by Table 2, that gathers different researches and respective conclusions on the relation between each cultural dimensions and CSR. The majority of studies in Table 2 were presented in Table 1, but now we zoom on each cultural dimensions' influence.

García-Meca et al. (2018) focus on banking and introduce the concept of cultural weakness. It states that a weak culture is individualist, masculine, vertically stratified, with aversion to uncertainty, short-term oriented and little indulgent. In this sense, the authors find that long-term orientation and indulgence have a positive relationship with CSR communication, as individualism, power distance, uncertainty avoidance and masculinity represent a negative one.

Adnan et al. (2018) observe CSR communication on corporate websites, annual and sustainable reports of 203 firms in China, Malaysia, India and United Kingdom. Findings

show that individualism promotes CSR communication but it is the opposite for power distance.

Garcia-Sanchez et al. (2016) observe all Hofstede's dimensions, except indulgence. They conclude that only long-term orientation promotes CSR communication, while individualism, power distance, uncertainty avoidance and masculinity have a negative impact.

Authors	Year	CSRC	Not CSRC	IDV	PDI	MAS	UAI	LTO	IND
García-Meca et al.	2018	Yes		-	-	-	-	+	+
Adnan et al.	2018	Yes		+	-				
Garcia- Sanchez et al.	2016	Yes		-	-	-	-	+	NC
Aggarwal & Goodell	2013		Transparency in Corporate Reporting	+	-	-	-	NC	NC
Ho et al.	2012		Corporate Social Performance	-	+	+	+	NC	NC
Peng et al.	2012		CSR Engagement	+	-	-	+	NC	NC
Orij	2010	Yes		+	-	-	+	=	NC
Ringov & Zollo	2007		Corporate Social Performance	=	-	-	=	NC	NC
Gray	1988		Financial Disclosure	-	+	-	+	NC	NC

NC: Not Considered

Source: Author's own elaboration

Table 2 - Relevant studies on cultural relationship with information disclosure and CSR Communication

On one hand, Aggarwal & Goodell (2013), using the Transparency in Corporate Reporting index of each multinational, find that individualism is the only of the four dimensions version with a positive relationship with CSR reporting. On the other hand, Ho et al. (2012) have opposite conclusions and observe that only individualism has a negative relationship with CSR communication.

Peng et al. (2012) measured CSR engagement with the Dow Jones Sustainability Index. Their results show that individualism and uncertainty avoidance have a positive

relationship with CSR communication, but is negative in the case of masculinity and power distance.

Orij (2010) observe the CSR level from Sustainalytics dataset of 600 corporations from different sectors and countries, concluding that individualism together with uncertainty avoidance have a positive relationship with CSR communication. As this is negative for masculinity and power distance. Long-term orientation presents no significant effect.

Ringov & Zollo (2007) through an Innovest Group database, that include social and environmental performance rating of companies from 34 countries, find that masculinity and power distance have a negative relationship with CSR performance. Interestingly, individualism and uncertainty avoidance appear to have no significant relation.

Gray (1988) studied the cultural influence on financial reporting. Even if it is not a CSR research, it is useful due to the results on cultural effects on information disclosure. Uncertainty avoidance and power distance converge to CSR communication. As for individualism and masculinity, they tend to decrease the level of CSR communication.

Studies have been observing the determinants that influence the degree of disclosure of information and CSR communication. As Table 2 demonstrates, not only academics have been inconsistent in their findings, but also they do not always consider Hofstede's six dimensions or focus on CSR communication of logistics firms. Thus, this work's aim is to fill this gap and understand how each cultural dimension influence CSR communication.

Finally, as one of the aims is to study the cultural influence on CSR communication, it is also relevant to analyse if the contact with multiple cultures influence CSR communication. Attig, Boubakri, El Ghoul & Guedhami (2016) and Chapple & Moon (2005) concluded that internationalisation has a positive effect on the degree of CSR. Therefore, it is important to test if this influence is also positive on CSR communication.

2.7. Hypotheses

The objectives of this study are to understand the home country role in CSR communication of logistics firms, filling the lack in previous literature. Namely, understanding how culture influences CSR communication on websites. Checking for firm size and home country characteristics effect on logistics firms CSR communication. Hence, hypotheses are divided in 3 main groups: cultural dimensions, firm size and home country characteristics.

For this purpose, several hypotheses are constructed and the null hypothesis significance testing – NHST – is applied. NHST is the approach more used to test research questions throught statistical models and it enables the confirmation or rejection of hypothesis (Andy, 2013).

As presented in the literature review, authors have been inconsistent on the influence of each Hofstede's cultural dimensions. For instance, individualism has a negative influence for Cuadrado-Bellesteros & Frias-Aceituno (2016), Garcia-Sanchez et al. (2016), Gray (1988) and Ho et al. (2012). However, Aggarwal & Goodell (2013), Orij (2010), Peng et al. (2012) and Ringov & Zollo (2007) diverge from this conclusion. Also, researches have not measured the individual influence of all six dimensions. García-Meca et al. (2018) looks at cultural weakness, but considering the six dimensions when cohexisting in a specific individual degree. Which is individualist, masculine, vertically stratified, with aversion to uncertainty, short-term oriented and little indulgent. Therefore, this study tests the following hypotheses.

H1a: Individualism has a negative relationship with CSR communication on websites.

H1b: Masculinity has a negative relationship with CSR communication on websites.

H1c: Power Distance has a negative relationship with CSR communication on websites.

H1d: Uncertainty Avoidance has a positive relationship with CSR communication on websites.

H1e: Long-Term Orientation has positive relationship with CSR communication on websites.

H1f: Indulgence has negative relationship with CSR communication on websites.

Firm size has appeared as a determinant for CSR communication in some works, such as Ali et al. (2017), Kouloukoui et al. (2019) or Syed & Butt (2017). In this hypothesis, the aim is to check if this situation remains for the case of CSR communication on logistics firms' websites.

H2: Firm Size has a positive relationship with CSR communication on websites.

Finally, other home country characteristics are considered to test their relationship with CSR communication of logistics firms' websites.

Globalisation have appeared to have a positive effect on CSR communication, as shown in Bowrin (2013) and Lim (2017). The KOF Globalisation Index 2016 is used to quantify the openness effect of the home country on CSR communication.

Ali et al. (2017), Aggarwal & Goodell (2013) and Lim (2017) have looked at national institutions as determinants of CSR communication and information disclosure. To contribute to this question, the institutions index from GII is used.

García-Meca et al. (2018) looks at cultural weakness, but considering the six dimensions when cohexisting in a specific individual degree. Which is individualist, masculine, vertically stratified, with aversion to uncertainty, short-term oriented and little indulgent. Since this works looks at home coutry role in CSR communication, we also test on cultural weakness.

H3a: Home country globalisation has a positive relationship with CSR communication on websites.

H3b: Home country institutions has a positive relationship with CSR communication on websites.

H3c: Home country cultural weakness has a negative relationship with CSR communication on websites.

3. Methodology

3.1. Sample

Based on the sampling realised by Piecyk & Björklund (2015), logistics firms are choosed using the following rankings: Alphaliner TOP 100 2019, Freight 50: Top 50 Carriers 2017, Inbound Logistics: Top 100 3PLs 2017, Inbound Logistics: 75 Green Supply Chain Partners 2017, Logistics Management: Top 50 Logistics Service Providers 2018 and Transport Topics: TOP 50 Logistics companies 2018 (AirCargo World, 2017; Alphaliner, 2019; Inbound Logistics, 2017a; Inbound Logistics, 2017b; Logistics Management, 2017; Transport Topics, 2018). Starting with a total of 421 corporations, removing overlaps (343 firms), checking for eventual mergers and that websites url are working properly, 290 companies are obtained. Finally, since one of the independent variables is total assets in 2017, retrieved from Thomson Reuters Eikon database, companies that do not have this information are pulled out, ending up with a sample of 109 logistics firms. The total list of logistics firms in the sample can be find in Annexe 1.

The sample represents the biggest logistics firms spread over 33 different countries. In Hofstede et al. (2010), countries are gathered as "Central and South America", "South and South-East Europe", "North and North-West Europe and Anglo World", "Central and East Europe and Ex-Soviet", "Muslim World, Middle-East and Africa" and "East and South East Asia". However, since the sample is composed of less countries, Asian, Arabic and Latin America Hofstede's categories are kept and the others are adapted considering cultural, economic and geographical areas. The Anglo speaking countries are gathered into one category. European countries are divided as Central, Mediterranean and Nordic. Due to the recent economic activity of BRIC – Brazil, Russia, India, China – countries, these are clustered together. Thus, logistics firms are grouped as Table 3 present. It encompasses 42 Anglo, 26 Asian, 6 Arabic, 12 from BRIC, 14 Central European, 1 Latin American, 1 Mediterranean and 7 Nordic. In 2017, around 70% of these 109 logistics firms had total assets of more than 1.500.000 thousand Euros. In terms of core services, the 109 logistics firms provide air, maritime, rail, road and multi-modal solutions.

Cultural Area	Observations	Countries
Anglo	42	Australia (1), Canada (1), New Zealand (1), United Kingdom (3), United States America (36)
Asian	26	Hong Kong (2), Indonesia (2), Japan (4), Malaysia (2), Singapore (3), South Korea (5), Taiwan (5), Thailand (2), Vietnam (1)
Arabic	6	Israel (1), Kuwait (1), Qatar (2), Turkey (1), United Arab Emirates (1)
BRIC	12	Brazil (1), China (6), India (3), Russia (2)
Central European	14	France (3), Germany (5), Netherlands (3), Switzerland (3)
Latin American	1	Chile (1)
Mediterranean	1	Italy (1)
Nordic	7	Denmark (3), Finland (1), Iceland (1), Sweden (2)
Total	109	

Table 3 - Cultural, economic and geographical distribution of logistics firms

3.2. Data Collection: dependent variable

The dependent variable of this study is Corporate Social Responsibility Communication (CSRC) on corporate website of logistics firms. Data is collected from each corporate website, which implies working with secondary data.

The methodology for data collection is content analysis. As observed in Table 1, it is the dominant one used for disclosure of information and CSR communication researches. Content analysis describes written content and their meaning, enabling its manipulation and coding. Here, the aim is to translate qualitative data into quantitative one (Cohen, Manion & Morrison, 2007).

To analyse the CSR communication of logistics firms' websites, an index is created. The construction of scorecards and indexes is a tool to quantify CSR communication, that can be designed according to the needs of the study, while enabling comparation between logistics firms. In fact, it was previously used by some authors, such as Bowrin (2013), García-Meca et al. (2018) and Platonova et al. (2018). The CSR communication index is composed of four different categories: prominence, diversity of issues covered, types of channels and extension of information. Logistics firms' websites were analysed between May and June 2019.

Starting on the homepage of the official website of each logistics firms, the prominence of CSR communication is checked. It refers to the area where CSR is communicated, which is higher if it is highlighted in the homepage, as considered in the methodology of Farache et al. (2007) and Wanderley et al. (2008). Therefore, in this category, indexation is attributed as follow:

- 0 when there is no CSR communication.
- 1 when CSR communication is in other pages of the website.
- 2 when CSR communication is highlighted in the homepage of the website.

Diversity of issues covered on websites is the variety of issues that companies include in their CSR communication. Chapple & Moon (2005) use community involvement, socially responsible production processes and socially responsible employee relations to measure diversity. However, since the focus of this work is in the logistics industry, the issues emphasized in Carter & Jennings (2002) framework are employed. As seen in the literature review, authors state that diversity, environment, ethics, human rights, philanthropy and safety should be included in the categories of logistics firms activity. It is relevant to mention that if a company has no CSR communication on the website and only publish a CSR report, the number of issues on the report is not considered. Thus, in this category, indexation goes as:

- 0 when there is no CSR communication.
- 1 when CSR communication reflects one issue.
- 2 when CSR communication reflects two issues.
- 3 when CSR communication reflects three issues.
- 4 when CSR communication reflects four issues.
- 5 when CSR communication reflects five issues.
- 6 when CSR communication reflects six issues.

In the literature review, it was mentioned that CSR communication could appear in different forms, such as websites, advertising and blogs. The type of CSR communication channels on corporate websites was also used by Farache et al. (2007), Filho & Wanderley (2007) and Wanderley et al. (2008). In this study, the following types of CSR communication channels are considered: presentation of information on CSR practices on websites; Code of Ethics; CSR reports; use of press releases/blog articles; presentation of awards/certifications related to CSR and the existence of a foundation or collaboration with an association. It is

important to state that if the Code of Ethics or CSR report is incorporated in the annual financial report, they were not considered. Hence, in this category the coding is:

- 0 when there is no CSR communication.
- 1 when CSR communication reflects one channel type.
- 2 when CSR communication reflects two channels types.
- 3 when CSR communication reflects three channels types.
- 4 when CSR communication reflects four channels types.
- 5 when CSR communication reflects five channels types.
- 6 when CSR communication reflects six channels types.

The last category is the extension of CSR communication on websites, which was also considered in Chapple & Moon (2005). To measure the extension, we considered only the number of pages on website dedicated to CSR communication. Henceforth, indexation goes as follow:

- 0 when no CSR communication.
- 1 when 1 to 3 pages are dedicated to CSR communication.
- 2 when 4 to 9 pages are dedicated to CSR communication.
- 3 when 10 or more pages are dedicated to CSR communication.

Finally, the sum of the value of each category provides an index. However, since each category has different maximums, it results in different category weights. The solution is to normalize, dividing each category by its maximum and to sum all of them. A normal index is obtained, varying from 0 to 4. Where the highest represent a greater quality of CSR communication and the lowest a smaller quality of CSR communication.

3.3. Data Collection: independent variables

While the dependent variable refers to CSR communication on corporate website, the independent variables relate to total assets of the logistics firm analysed and its head-quarter home country characteristics. The independent variables were collected at the beginning of June 2019.

The collection of each value of the Hofstede cultural dimensions is retrieved from the official website Hofstede Insights (2019). When available individualism, masculinity power distance, uncertainty avoidance, long-term orientation and indulgence values are gathered, allowing to study each influence on CSR communication. This refers to the first group of hypotheses (H1a, H1b, H1c, H1d, H1e, H1f).

Total assets are the only independent variable that relates directly to a logistics firm and are used to test H2. Such as Cabeza-García et al. (2017), García-Meca et al. (2018), Kouloukoui et al. (2019) and Syed & Butt (2017), this variable is used to represent firm size. Values are retrieved from Thomson Reuters Eikon, in thousands of Euro, in 2017, and enable the observation of firm size on CSR communication. The year of 2017 was chosen so the sample could englobe more logistics firms, than if 2018 was considered.

Bowrin (2013) and Lim (2017) analysed the influence of home country globalisation and foreign contact. With the same purpose in mind, KOF Globalisation Index 2016 is used to quantify the openness effect of the home country on CSR communication and answer to H3a. This index considers three dimensions of globalisations: economic, social and political. The higher it is, the more the country is open to the world (KOF Globalisation Index, 2016).

The Global Innovation Index (GII) 2018 is the result of a collaboration between Cornell University, INSEAD and the World Intellectual Property Organization. One of its particularities is that it includes several national indexes, allowing comparations. Ali et al. (2017), Aggarwal & Goodell (2013) and Lim (2017) are some authors that have looked at national institutions as determinants of CSR communication and information disclosure. To contribute to this question and test H3b, the institutions' index is retrieved from GII. It englobes political, regulatory and business environment.

As seen in the literature review, García-Meca et al. (2018) introduced the concept of cultural weakness. It states that a weak culture is individualist, masculine, vertically stratified, with aversion to uncertainty, short-term oriented and little indulgent. As the focus of this dissertation is on cultural influence, this is also considered as an independent variable and is represented in H3c.

3.4. Regression

The statistical analysis of this study includes a multiple linear regression. In fact, this model tests the relationship between the dependent variable and several independent variables (Andy, 2013). The multiple linear regression is as follows:

$$\begin{aligned} \mathsf{CSRC} &= \ \alpha + \beta_1 \mathsf{IDV} + \beta_2 \mathsf{MAS} + \beta_3 \mathsf{PDI} + \beta_4 \mathsf{UAI} + \beta_5 \mathsf{LTO} + \beta_6 \mathsf{IND} + \beta_7 SIZE \\ &+ \beta_8 GLOBAL + \beta_9 INSTITUTS + \ \beta_{10} CTL \, WK \end{aligned}$$

CSRC - Corporate Social Responsibility Communication

IDV – Individualism

MAS – Masculinity

PDI – Power Distance

UAI – Uncertainty Avoidance

LTO - Long-term Orientation

IND – Indulgence

SIZE – Firm Size measured in Total Assets

GLOBAL – Country level of Globalisation

INSTITUTS – Institutions

CTL WK - Cultural Weakness

4. Results and Analysis

In this section, the results and respective analysis are presented.

For starters, the descriptive analysis reveals the highest and lowest cultural areas in terms of CSR Communication, Prominence, Issues, Type and Extension. Next, the regression analysis looks at possible outliers, normal distribution and the hypotheses results. Lastly, a discussion analyze and relate the results with previous researches.

Data was processed and studied through Microsoft Excel and IBM SPSS Statistics (Statistical Package for the Social Sciences), version 25.

4.1. Descriptive Analysis

Table 4 gathers a mean of the dependent variable – CSRC Index Norm – and of the categories that it encompasses: prominence, issues covered, type of CSR communication channels and extension.

Cultural Area	CSRC Index Norm	Prominence	Issues	Туре	Extension
Anglo	0,623	0,631	0,667	0,615	0,579
BRIC	0,347	0,500	0,292	0,375	0,222
Central European	0,655	0,714	0,667	0,643	0,595
Nordic	0,708	0,643	0,762	0,667	0,762
Mediterranean	0,542	0,500	0,500	0,833	0,333
Latin American	0,708	1,000	0,500	0,667	0,667
Asian	0,684	0,712	0,673	0,635	0,718
Arabic	0,632	0,667	0,667	0,583	0,611

Table 4 - Dependent variable and its components means by cultural area

The biggest CSRC Index is the Nordic and Latin American one, while the smallest is from BRIC. In terms of prominence given to CSR on logistics firms' website, Latin American and Central Europe have the highest mean. Contrarily to the BRIC and the Mediterranean. Looking at the issues, Nordics are the ones that covers the most CSR issues, followed by Asians. BRIC is the cultural area that comprises the lowest number of issues in their CSR communication, including only 38% of issues that Nordics present. For the next mean, Latin

American, Nordics and Mediterranean are the ones that provides the most types of communication channels for CSR. Finally, Nordics exhibit the major mean in terms of extension of CSR communication, while BRIC are the more succint cultural area.

Cultural Area	Diversity	Environment	Ethics	Human Rights	Philanthropy	Safety
Anglo	0,571	0,857	0,595	0,690	0,571	0,714
BRIC	0,083	0,583	0,250	0,167	0,417	0,250
Central European	0,500	0,786	0,714	0,643	0,643	0,714
Nordic	0,857	0,857	0,857	0,714	0,429	0,857
Mediterranean	0,000	1,000	1,000	0,000	1,000	0,000
Latin American	0,000	1,000	1,000	0,000	1,000	0,000
Asian	0,346	0,846	0,769	0,731	0,731	0,615
Arabic	0,500	0,833	0,667	0,667	0,833	0,500
TOTAL	0,459	0,817	0,642	0,624	0,615	0,624

Table 5 - Issues means by cultural area

It is interesting to zoom into the issues covered, to understand which issues are given more relevance by cultural areas. Globally, environment is the issue that appears the most in CSR communication of all logistics firms. It is followed by ethics, human rights, safety, philanthropy and, lastly, diversity. Less than 50% of logistics firms analysed has included diversity in their CSR communication and Nordics are the ones that have more contributed. Whereas, the Latin American along with the Mediterranean have not included diversity and the BRIC almost never did. In terms of environment, Latin America, Mediterranean, Nordic and Anglo are the cultural areas that more include environment in their CSR communication, as BRIC is the one that publish less. Regarding ethics, Latin America, Mediterranean, Nordic and Asia are the zones that exhibit a higher communication mean. The smaller ethics mean is from BRIC. When checking for human rights, one finds that Asians present the bigger mean, followed by Nordics, and BRIC the smaller. As for philanthropy, Arabs, Latin American and Mediterranean are the ones that give it more relevance. In contrast, BRIC and Nordic area tend to disregard this issue. Finally, Nordics present the biggest focus on safety

communication. While, Latin American, jointly with Mediterranean, do not include this topic at all.

Cultural Area	Code of Ethics	CSR Reports	Website	Press Releases	Certifications	Foundation
Anglo	0,595	0,452	0,881	0,571	0,619	0,571
BRIC	0,083	0,583	0,583	0,333	0,417	0,250
Central European	0,643	0,714	0,857	0,571	0,571	0,500
Nordic	0,857	0,857	1,000	0,143	0,571	0,286
Mediterranean	1,000	1,000	1,000	1,000	1,000	0,000
Latin American	1,000	1,000	1,000	0,000	1,000	0,000
Asian	0,500	0,577	0,885	0,538	0,692	0,615
Arabic	0,500	0,833	0,833	0,167	0,333	0,833
TOTAL	0,541	0,587	0,853	0,486	0,596	0,541

Table 6 - Type of CSR communication channels means by cultural area

In Table 6, it is possible to observe the type of CSR communication channels prefered by cultural area. Website is the channel more used by logistics firms to communicate CSR to stakeholders. It is followed by certifications, CSR reports, code of ethics, foundation and press release. In terms of code of ethics and CSR reports, Nordics, Latin American and Mediterranean publish the most this type of information. As for the first type, BRIC is the area with the smaller mean. And for the second type, the same happens for Anglos. In terms of press release, it is used more by Mediterranean, Anglo and Central European. Whereas, Latin American and Arabic do not or rarely use this type of CSR communication channel. Regarding certifications received, Latin American, Mediterranean and Asians are the ones that more reveal this type of information, while the opposite occurs with Arabics. Finally, the existence of a foundation or collaboration with an association was mostly communicated by Arabics. In fact, Latin American, Mediterranean and BRIC never or rarely disclose this type of relation.

The same analysis is done to independent variables means by cultural area, except for Hofstede's cultural dimensions. Globalisation is the higher for Central Europe (0,892) and smaller for Asia (0,612). Regarding national institutions, they appear has more developed for

Nordics (0,912) and less for BRIC (0,579). Lastly, logarithm of total assets mean tends to be greater for Latin America and BRIC (0,682 and 0,661, respectively). As it is minor in the Nordics (0,588).

4.2. Regression Analysis

To test the hypotheses presented earlier, a multiple linear regression model was used. Before analysing each independent variables contribution to the dependent variable, it is relevant to observe the normality, linearity and homoscedasticity.

The Mahalanobis distance is applied in multivariate normality situations. It is the distance of a certain sample case from the means of all the variables. In this regression model, there are ten independent variables, using the alpha level of 0.001, it implies that the critical value of Mahalanobis distance is 29,59. Since in Table 7, the maximum for Mahalanobis distance is 25,550, being smaller than the critical value, it is possible to conclude that there are no outliers (Pallant, 2016; Sussex University, 2005).

The Cook's distance helps to understand if there is a particular case that has an inappropriate effect on the results of the whole regression model. Checking below table, the maximum Cook's distance takes the value of 0,667, as it is inferior than 1, there is no evidence of this kind of effect (Pallant, 2016).

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	0,074	0,952	0,604	0,185	99
Std. Predicted Value	-2,866	1,880	0,000	1,000	99
Residuals	-0,911	0,459	0,000	0,215	99
Mahalanobis Distance	1,257	25,550	8,909	6,760	99
Cook's Distance	0,000	0,667	0,018	0,069	99

Table 7 - Residuals Statistics

Looking at Figure 1, we can observe the Normal Probability Plot of the dependent variable. The more the points overlap with the straight diagonal line, the less there is deviation from normality and the smaller is the error's normal distribution. In this case, even if residuals are not perfectly distributed, it is fair to conclude normal distribution is adequate (Pallant, 2016).

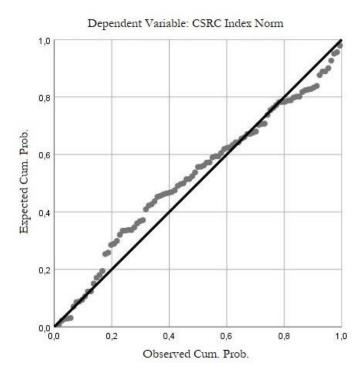


Figure 1 - Normal probability plot of the regression standardised residual

Regarding model's evaluation, the R Square obtained is 0,425. It indicates that the multiple linear regression explains 42,5 per cent of the variance in CSR communication, which is acceptable (Pallant, 2016).

Table 8 displays the relationship between CSR communication and each independent variables. According to Andy (2013), when using NHST the common criterion is 0,05. If the p-value (Sig.) is lower than 0,05, then there is enough confidence to conclude on the statistical appropriation to the model.

It is possible to observe that four independent variables are significant, with a p-value below 0,05. Uncertainty avoidance exhibit a p-value of 0,024 and has a positive relationship with CSR communication. The other Hofstede's cultural dimension that appear with a p-value of 0,042 is long-term orientation. Its coefficient is negative, implying the rejection of H1e. Looking at the only independent variable that relates directly to a logistics firm – logarithm of total assets –, it takes a p-value<0,001. The coefficient is positive, so the hypothesis H2 is validated. The last significant variable is cultural weakness, with a p-value of 0,018 and a negative coefficient.

Looking closer, it is possible to observe that the independent variable individualism has been excluded from the output. With a tolerance of 0, individualism's variance is already reflected in the other independent variables and is thus redundant (Andy, 2013).

As for the rest of the variables they take a significance value higher than 0,05. The masculinity variable reveal a sig. value of 0,056, being very close to the criterion. Nevertheless, it is still higher than 0,05. Hence, hypothesis H1a, H1b, H1c, H1f, H3a and H3b can not be validated.

Finally, logarithm of total assets assume the highest significance value, however it is not the independent variable with more contribuition to CSR communication. In fact, when looking at coefficients under Standardised Coefficients, cultural weakness is the one that presents a stronger relationship with CSR communication, with a negative coefficient of 0,724. It is followed by long-term orientation (-0,714), logarithm of total assets (0,530) and uncertainty avoidance (0,417).

	Unstan	dardized	Standardized		
Model	Coefficients		Coefficients	T	Sig.
	Beta	Std. Error	Beta		
(Constant)	-0,039	0,640		-0,060	0,952
MAS	0,631	0,326	0,408	1,939	0,056
PDI	0,247	0,230	0,166	1,074	0,286
UAI	0,581	0,252	0,417	2,302	0,024
LTO	-0,794	0,386	-0,714	-2,059	0,042
IND	-0,489	0,416	-0,308	-1,175	0,243
SIZE	1,516	0,244	0,530	6,204	0,000
GLOBAL	0,915	0,713	0,267	1,283	0,203
INSTITUTS	0,558	0,399	0,244	1,401	0,165
CLT WK	-3,004	1,252	-0,724	-2,400	0,018

Table 8 - Multiple linear regression coefficients

4.3. Results Analysis

To conclude this section, it is relevant to analyse the results and relate them to the literature along with previous researches.

Through the descriptive analysis, it is possible to notice similarities and differences between societies in their websites' CSR communication. In fact, looking at the CSR communication Index constructed, issues covered, type of communication channels and extension, it is observed that Nordics societies presented the highest means. As BRIC are the lowest. In terms of prominence, Central Europe was the one scoring the biggest mean.

In relation to the issues covered, there is one similarity between all cultures: the environment, as it is the most common topic to be communicated. In contrast to diversity, that is the less mentioned topic. This conclusion diverges from Tarquinio et al. (2018), where labour is the issue most disclosed and human rights the less one. Looking at the rest of the issues in this dissertation, Asian and Nordics countries appear to focus on ethics and human rights issues, while Arabs give more relevance to philanthropy. Finally, Anglo, Central European and Nordic are the ones that more communicate on safety.

As for type of information presented, website is the tool most used by all cultures to communicate CSR to stakeholders. Contrarily to press releases, that is the tool that less appeared and is more associated to Anglo and Central Europe. Asian and Anglos see the attribution and communication of CSR certifications as relevant. While this is disregarded by Arabs, that prefer to work with foundations. Nordics and Arabs are the cultures that publish the most CSR reports, opposed to Anglos. Lastly, Code of Ethics was mostly used by Nordics.

The Mediterranean and Latin America are only represented by one logistics firm, respectively, which difficult the representation analysis of each culture. Interestingly, it is possible to observe that these two tend to be similar in terms of topics covered and type of information, diverging only in the publication of press releases.

Looking now at the hypothesis developed, divided into 3 main groups: cultural dimensions, firm size and home country characteristics.

Only two of Hofstede's cultural dimensions show significant effect on CSR communication.

Uncertainty avoidance has a positive relationship with CSR communication, that is, the more a culture tends to avoid uncertainty, the higher is the quality of CSR communication on websites. This can be justified because an uncertain society is worried about what the

future may or not bring, cares about health and money, reach for experts' advice and expect correct answers from them. Other characteristics is that it gives relevance to low-risk investments, to formalization and is motivated by security along with the feeling of belonging (Hofstede et al., 2010). Through environmental, social and business considerations, CSR communication can be seen as a way to decrease uncertainty. This conclusion on uncertainty avoidance converge with the work of Ho et al. (2012), Peng et al. (2012), Orij (2010) and Gray (1988).

As for long-term orientation, results reveal a negative influence of CSR communication on websites. This may be curious since this cultural dimension can be associated with the concern in the future – which should promote CSR communication – and diverge from the conclusions of Garcia-Sanchez et al. (2016) and Orij (2010). However, the explanation can be find in the specificities that make a short-term orientation society, that is, a low long-term orientation score. Short-term orientation values include conservation, national pride, social obligation, not loosing face and application of fixed norms. Moreover, service to others is important, as well as possessing the truth and having an analytical and rational thinking (Hofstede et al., 2010). These characteristics may explain why a short-term orientation culture influence positively CSR communication on websites, which is equivalent as saying that a long-term orientation have a negative influence on CSR communication. Furthermore, Nordics are the ones that reveal the highest CSR communication Index mean in this study, which also feature a low long-term orientation score mean (39,57).

In terms of firm size, findings show a strong positive influence of CSR communication on logistics firms' websites, converging with Ali et al. (2017), Kouloukoui et al. (2019) and Syed & Butt (2017) works. In fact, big firms exhibit a high public visibility, consequently, they are more pressured and monitored by investors, regulatory authorities and stakeholders to communicate on CSR. Additionally, the firm' structure complexity, the need for capital raising and the fact that they tend to evidence more information promotes the CSR communication on websites (Kouloukoui et al., 2019; Syed & Butt, 2017).

Finally, considering globalisation, institutions and cultural weakness as home country characteristics, only the last one expressed significant relationship with CSR communication.

Results illustrate that cultural weakness has a negative relationship with CSR communication on websites. A weak culture won't make CSR communication its priority, since it is individualist, masculine, vertically stratified, with aversion to uncertainty, short-term oriented and little indulgent (García-Meca et al., 2018). At first sights, this might seem

inconsistent with the conclusions previously presented on the positive influence of uncertainty avoidance on CSR communication and the negative one of long-term orientation. However, there is the need to keep in mind that it considers the individual influence of each cultural dimensions on CSR communication on websites. While cultural weakness is a construction of all cultural dimensions at a specific level. More specifically, uncertainty avoidance alone have a positive relation with CSR communication, but it is negative when individualism, masculinity, power distance, short-term orientation and little indulgence cohexist together.

5. Conclusions

In the era of globalisation, international trade has grown significantly, which in turn lead to an increase in competition as now companies have to face local, national, and worldwide competition. The need to specialize in core business activities, the growing complexity of distribution channels along with the outsourcing trend, gave space for logistics firms to settle and propose their services in the market. The international awareness of multinationals activity along with global warming concerns made CSR communication a tool that companies need to not only keep business running, but also to make it strive (Peng et al., 2012; Piecyk & Björklund, 2015; Selviaridis & Spring, 2007).

Cultural values influence us in daily life. It shapes behaviours with similarities or differences to neighbouring societies. The way firms communicate their CSR on website is no exception to this cultural influence.

In fact, looking at the CSRC Index constructed, issues covered, type of information, and extension, it is possible to observe that Nordic societies presented the highest means; while BRIC societies have the lowest. In terms of prominence, Central Europe was the one scoring the biggest mean.

In relation to issues covered, there is one similarity between all cultures: the environment, since it is the most common issue to be communicated. In contrast to diversity, that is the less mentioned one. Asian and Nordic countries appear to focus on ethics and human rights issues, while Arabic ones give more relevance to philanthropy. Finally, Anglo, Central European and Nordics communicate the most regarding safety.

As for the channel type used to convey the information, the mostly used one, by all societies/countries, is the website. Contrarily to press releases, that is the channel that is used the least, being more related to Anglo and Central Europe. The attribution and communication of CSR certifications is considered relevant by Asian and Anglo countries, but disregarded by Arabic countries, that prefer to work on foundations. Nordic and Arabic cultures publish the most CSR reports, while the Anglo is the one that publis the least. Lastly, Code of Ethics was mostly used by Nordic countries.

Only two of Hofstede's cultural dimensions show significant effect on CSR communication, namely uncertainty avoidance and long-term orientation.

Uncertainty avoidance has a positive relationship with CSR communication across all cultures, since the more a company tries to avoid uncertainty, the higher is the quality of CSR communication on websites. This can be justified because in the presence of uncertainty

any society becomes worried about what the future may hold, and thus, reaches for experts' advice (Hofstede et al., 2010).

As for long-term orientation, results reveal a negative relationship with CSR communication through websites. This may be curious since this cultural dimension can be associated with the concern about the future, which should promote CSR communication. However, the explanation can be found in the specificities that make a society short-term orientated. Short-term orientation values include conservatism, national pride, social obligation, not loosing face and compliance with fixed norms. Moreover, service to others is important, as well as possessing the truth and having an analytical and rational thinking (Hofstede et al., 2010).

In terms of firm size, the findings show a strong positive influence on CSR communication through websites. In fact, large firms exhibit a high public visibility, consequently, they are more pressured and monitored by investors, regulatory authorities and stakeholders regarding CSR communication (Kouloukoui et al., 2019; Syed & Butt, 2017).

Finally, considering globalisation, institutions and cultural weakness as home country characteristics, only the last one expressed significant relationship with CSR communication. The results show that cultural weakness has a negative relationship with CSR communication on websites. A weak culture does not have CSR communication as its priority, due to being individualist, masculine, vertically stratified, with aversion to uncertainty, and short-term oriented with little indulgent (García-Meca et al., 2018).

The objectives of this study were to bridge the gap in previous literature. Namely, understanding how culture influence CSR communication on logistics firms websites. Checking the effects of firm size and home country characteristics on logistics firms CSR communication. Through a website content analysis of 109 logistics firms, it has been shown that they have similar as well as different behaviours towards CSR communication, shaped by culture. Some societies give more relevance to CSR communication than others, particularly in certain issues. Similar conclusions can be drawn regarding the channels used to communicate CSR. In terms of Hofstede's cultural dimensions, only uncertainty avoidance and long-term orientation impact significantly CSR communication. As for firm size a positive relation with CSR communication on websites can be observed. Finally, cultural weakness refrains CSR communication, while for the other home country

characteristics – globalisation and institutions –, it was not possible to validate the relationship to CSR communication.

5.1. Limitations and Research Suggestions

In this dissertation, it is possible to observe some limitations.

The sample selection is based on rankings that include the largest logistics firms in the world, considering only the ones that disclosed total assets of 2017, in Thomson Reuters Eikon database. Thus resulting in a sample composed of 109 logistics firms, where around 1/3 are from the United States of America. Given that this study looks at the impact of home country characteristics in CSR communication, having such a large portion of the sample from a single country is likely to introduce bias in the findings.

The cultural, economic and geographical areas are adapted from Hofstede's countries divisions, ending up with two cultural areas, Latin America and Mediterranean, represented by only one country respectively, Chile and Italy. Another factor that is likely to introduce bias in the findings.

One of the hypothesis tested in this dissertation was the influence of firm size on CSR communication of logistics firms' websites. Total assets were only retrieved from one database, Thomson Reuters Eikon, and were not compared with any other. Even being a reliable source, other information could have been included to represent firm size, such as number of employees. Besides, around 70% of the sample refer to companies with more than 1.500.000 thousands Euros of total assets. Thus, the conclusions regarding the firm size are also likely to be biased. Considering smaller logistics firms, in future studies would be a solution.

The evaluation of the CSRC Index has some degree of subjectivity, namely in the issue categories and does not allow the observation of all the CSR information communicated. For instance, only what was published on websites was analysed. The existence of Code of Ethics and CSR reports were considered, but their content were not studied, which constitutes another limitation.

Nevertheless, this dissertation can be a starting point for other researches, that may obviate the limitations identified. In the future, considering a higher number of firms in the sample, belonging to a larger number of different cultural areas can be interesting.

Furthermore, focusing in other industries, while applying this methodology, in order to compare issues, type of information communicated, and cultural influence is another suggestion.

Besides, the CSRC index can be improved by considering social media, website's interactivity, and the use of international standards, for example. The investment in CSR communication and the national use or access to internet can be included as independent variables.

Finally, looking at CSR communication evolution in time and analyzing which culture developed more its disclosure strategy can be of great academic value. However, the data needed would probably imply a smaller sample.

References

Adnan, S. M., Hay, D. & van Staden, C. J. (2018). The influence of culture and corporate governance on corporate responsibility disclosure: A cross country analysis. *Journal of Cleaner Production*, 198(1), 820-832.

Aggarwal, R. & Goodell, J. W. (2013). Governance transparency among the largest multinational corporations: influence of firm, industry and national factors. *Transnational Corporations*, 22(1), 1-29.

AirCargo World (2017). Freight 50: Top 50 Carriers Chart. Retrieved from https://aircargoworld.com/allposts/freight-50-top-50-carriers-chart/, accessed in 15.03.2019.

Ali, W., Frynas, J. G. & Mahmood, Z. (2017). Determinants of Corporate Social Responsibility (CSR) Disclosure in Developed and Developing Countries: A Literature Review. *Corporate Social Responsibility and Environmental Management*, 24(4), 273-294.

Alphaliner (2019). *Alphaliner TOP 100 2019*. Retrieved from https://alphaliner.axsmarine.com/PublicTop100/, accessed in 15.03.2019.

Andrikopoulos, A., Merika, A. A., Triantafyllou, A. & Merikas, A. G. (2014). Internet disclosure and corporate performance: A case study of the international shipping industry. *Transportation Research Part A: Policy and Practice*, 47(1), 141-152.

Andy, F. (2013). Discovering statistics using IBM SPSS Statistics: and sex and drugs and rock'n'roll. (4th ed.). London: Sage Publications.

Attig, N., Boubakri, N., El Ghoul, S. & Guedhami, O. (2016). Firm Internationalization and Corporate Social Responsibility. *Journal of Business Ethics*, 134(2), 171-197.

Bardi, E. J. & Tracey, M. (1991). Transportation Outsourcing: A Survey of US Practices. *International Journal of Physical Distribution & Logistics Management*, 21(3), 15-21.

Bhatnagar, R. & Viswanathan, S. (2000). Re-engineering global supply chains: Alliances between manufacturing firms and global logistics services providers. *International Journal of Physical Distribution & Logistics Management*, 30(1), 13-34.

Financial Times (2010). Walmart to set emissions goals for suppliers. Retrieved from https://www.ft.com/content/f981e2c2-224a-11df-9a72-00144feab49a, accessed in 11.02.2019.

Björklund, M., Forslund, H. & Isaksson, M. P. (2016). Exploring logistics-related environmental sustainability in large retailers. *International Journal of Retail & Distribution Management*, 44(1), 38-57.

Bowrin, A. R. (2013). Corporate social and environmental reporting in the Caribbean. *Social Responsibility Journal*, 9(2) 259-280.

Cabeza-García, L., Sacristán-Navarro, M. & Gómez-Ansón, S. (2017). Family involvement and corporate social responsibility disclosure. *Journal of Family Business Strategy*, 8(2), 109-122.

Carbon Disclosure Project (2011). Carbon Disclosure Project Supply Chain Report 2011: Migrating to a low carbon economy through leadership and collaboration. London: Carbon Disclosure Project.

Carbone, V., Moatti, V. & Vinzi, V. E. (2012). Mapping corporate responsibility and sustainable supply chains: an exploratory perspective. *Business Strategy and the Environment*, 21(7), 475-494.

Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons*, 34(1), 39-48.

Carter, C. R. & Jennings, M. M. (2002). Logisticis Social Responsibility: An Integrative Framework. *Journal of Business Logistics*, 23(1), 145-180.

Closs, D., Speier, C. & Meacham, N. (2011). Sustainability to support end-to-end value chains: the role of supply chain management. *Journal of the Academy of Marketing Science*, 39(1), 101-116.

Cohen, L., Manion, L. & Morrison, K. (2007). Research Methods in Education. (6 th ed.). New York: Routledge.

Coombs, W. T. & Holladay, S. J. (2013). The pseudo-panopticon: the illusion created by CSR-related transparency and the internet. *Corporate Communications: An International Journal*, 18(2), 212-227.

de Brito, M. P., Carbone, V. & Blanquart, C. M., (2008). Towards a sustainable fashion retail supply chain in Europe: organisation and performance. *International Journal of Production Economics*, 114(2), 534-553.

Delgado, C. & Branco, C. M. (2013). Gestão responsável da cadeia logística. In Almeida, F., Malheiro, A., Franco, Maria José Batista, Brito, P. & Freitas, C., *Coletânea Luso-Brasileira IV: Gestão da Informação, Inovação e Logística* (pp. 385-410). Goiânia: Faculdade de Tecnologia SENAI de Desenvolvimento Gerencial.

Du, S., Bhattacharya, C. B. & Sen, S. (2010). Maximizing Business Returns to Corporate Social Responsibility (CSR): The Role of CSR Communication. *International Journal of Management Reviews*, 12(1), 8-19.

Dubey, R., Gunasekaran, A., Papadopoulos, T., Childe, S. J., Shibin, K. T. & Wamba, S. F. (2017). Sustainable supply chain management: framework and further research directions. *Journal of Cleaner Production*, 142(2), 1119-1130.

Eimhjellen, I. S. (2014). Internet Communication: Does It Strengthen Local Voluntary Organizations? *Nonprofit and Voluntary Sector Quarterly*, 43(5), 890-909.

Farache, F., Wanderley, L. S. O., Perks, K. J. & Filho, J. M. S. (2007). Responsabilidade Social das empresas na web: Estratégias de divulgação adotadas pelas maiores empresas francesas no Brasil e na França. Revista Eletrônica de Gestão Organizacional, 5(3), 1-20.

Filho, J. M. S. & Wanderley, L. S. O. (2007). Divulgação da responsabilidade social empresarial: como os websites empresariais vêm sendo utilizados por empresas de energia e varejo. *Cadernos EBAPE.BR*, 5(2), 1-13.

French, M. L. & LaForge, R. L. (2006). Closed-loop supply chains in process industries: An empirical study of producer re-use issues. *Journal of Operations Management*, 24(3), 271-286.

García-Meca, E., Uribe-Bohórquez, M. V. & Cuadrado-Ballesteros, B. (2018). Culture, Board Composition and Corporate Social Reporting in the Banking Sector. *Administrative Sciences*, 8(3), 41-63.

Garcia-Sanchez, I. M., Cuadrado-Ballesteros, B. & Frias-Aceituno, J. V. (2016). Impact of the Institutional Macro Context on the Voluntary Disclosure of CSR Information. *Long Range Planning*, 49(1), 15-35.

Genovese, A., Acquaye, A. A., Figueroa, A. & Koh, S. C. L. (2017). Sustainable supply chain management and the transition towards a circular economy: Evidence and some applications. *Omega*, 66(2), 344-357.

Gray, S. J. (1988). Towards a Theory of Cultural Influence on the Development of Accounting Systems Internationally. *ABACUS - A Journal of Accounting, Finance and Business Studies*, 24(1), 1-15.

Global Justice Now (2016). 10 biggest corporations make more money than most countries in the world combined. Retrieved from

https://www.globaljustice.org.uk//sites/default/files/files/resources/corporations_vs_go vernments_final.pdf, accessed in 05.01.2019.

Ho, F. N., Wang, H.-M. D. & Vitell, S. J. (2012). A Global Analysis of Corporate Social Performance: The Effects of Cultural and Geographic Environments. *Journal of Business Ethics*, 107(4), 423-433.

Hofstede Insights (2019). *Compare Countries*. Retrieved from https://www.hofstede-insights.com/product/compare-countries/, accessed in 07.01.2019.

Hofstede, G., Hofstede, G. J. & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind.* (3rd ed.). New York: McGraw-Hill.

Inbound Logistics (2017a). *Top 100 3PL Providers*. Retrieved from https://resources.inboundlogistics.com/digital/Top_100_3PL_Digital_0717.pdf, accessed in 15.03.2019.

Inbound Logistics (2017b). *75 Green Supply Chain Partners*. Retrieved from https://www.inboundlogistics.com/cms/article/75-green-supply-chain-partners/, accessed in 15.03.2019.

International Trade Union Confederation (2016). Scandal - Inside the global supply chains of 50 top companies, Frontline Report 2016. Brussels: Sharron Burrow.

Kim, S. & Ferguson, M. A. (2014). Public Expectations of CSR Communication: What and How to Communicate CSR. *Public Relations Journal*, 8(3), 1-22.

Kouloukoui, D., Sant'Anna, A. M. O., Gomes, S. M. S., Marinho, M. M. O., Jong, P., Kiperstok, A. & Torres, E. A. (2019). Factors influencing the level of environmental disclosures in sustainability reports: Case of climate risk disclosure by Brazilian companies. *Corporate Social Responsibility and Environmental Management*, 1(1), 1-14.

Lim, A. (2017). Global corporate responsibility disclosure: A comparative analysis of field, national, and global influences. *International Sociology*, 32(1), 61-85.

Logistics Management (2017). Top 50 US and Global Third Party Logistics Providers (3PL) in 2017: Collaboration Is Now Paramount. Retrieved from

https://www.logisticsmgmt.com/article/top_50_us_and_global_third_party_logistics_proprovid_3pl_in_2017_collaborat, accessed in 15.03.2019.

Maloni, M. J. & Brown, M. E. (2006). Corporate Social Responsibility in the Supply Chain: An Application in the Food Industry. *Journal of Business Ethics*, 68(1), 35-52.

- Markley, M. J. & Davis, L. (2007). Exploring future competitive advantage through sustainable supply chains. *International Journal of Physical Distribution & Logistics Management*, 37(9), 763-774.
- Orij, R. (2010). Corporate Social Disclosures in the context of National Cultures and Stakeholder Theory. *Accounting, Auditing & Accountability Journal*, 23(7), 868-889.
- Pallant, J. (2016). SPSS: Survival Manual. A Step by Step Guide to Data Analysis Using IBM SPSS. (6th ed.). Berkshire: McGraw-Hill.
- Peng, Y.-S., Dashdeleg, A.-U. & Chih, H. L. (2012). Does National Culture Influence Firm's CSR Engagement: a Cross Country Study. *International Proceedings of Economics Development and Research*, 58(9), 40-44.
- Piecyk, M. I. & Björklund, M. (2015). Logistics service providers and corporate social responsibility: sustainability reporting in the logistics industry. *International Journal of Physical Distribution & Logistics Management*, 45(5), 459-485.
- Platonova, E., Asutay, M., Dixon, R. & Mohammad, S. (2018). The Impact of Corporate Social Responsibility Disclosure on Financial Performance: Evidence from the GCC Islamic Banking Sector. *Journal of Business Ethics*, 151(2), 451-471.
- Rao, K. & Young, R. R. (1994). Global supply chains: factors influencing outsourcing of logistics functions. *International Journal of Physical Distribution & Logistics Management*, 24(6), 11-19.
- Ringov, D. & Zollo, M. (2007). Corporate responsibility from a socio-institutional perspective: the impact of national culture on corporate social performance. *Corporate Governance International Journal of Business in Society*, 7(4), 476-485.
- Rutner, S. M. & Langley, C. J. (2000). Logistics Value: Definition, Process and Measurement. *The International Journal of Logistics Management*, 11(2), 73-82.
- Schmeltz, L. (2012). Consumer-oriented CSR communication: focusing on ability or morality? *Corporate Communications: An International Journal*, 17(1), 29-49.
- Seele, P. & Lock, I. (2015). Instrumental and/or Deliberative? A Typology of CSR Communication Tools. *Journal of Business Ethics*, 131(2), 401-414.
- Selviaridis, K. & Spring, M. (2007). Third party logistics: a literature review and research agenda. *The International Journal of Logistics Management*, 18(1), 125-150.
- Seuring, S & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 16(15), 1699-1710.

Sussex University (2005). *Table of critical Chi-Square values*. Retrieved from http://users.sussex.ac.uk/~grahamh/RM1web/ChiSquareTable2005.pdf, accessed in 15.07.2019.

Syed, M. A. & Butt, S. A. (2017). Financial and non-financial determinants of corporate social responsibility: empirical evidence from Pakistan. *Social Responsibility Journal*, 13(4), 780-797.

Tarquinio, L., Raucci, D. & Benedetti, R. (2018). An Investigation of Global Reporting Initiative Performance Indicators in Corporate Sustainability Reports: Greek, Italian and Spanish Evidence. *Sustainability*, 10(4), 897-916.

Transport Topics (2018). TOP 50 Logistics. Retrieved from https://www.ttnews.com/top50/logistics/2018, accessed in 15.03.2019.

van Damme, D. A. & Ploos van Amstel, M. J. (1996). Outsourcing Logistics Management Activities. *The International Journal of Logistics Management*, 7(2), 85-94.

Wanderley, L. S. O., Lucian, R., Farache, F. & Filho, J. M. S. (2008). CSR Information Disclosure on the Web: A Context-Based Approach Analysing the Influence of Country of Origin and Industry Sector. *Journal of Business Ethics*, 82 (2), 369-378.

Xia, Y. & Li-Ping Tang, T. (2011). Sustainability in supply chain management: suggestions for the auto industry. *Management Decision*, 49(4), 495-512.

Annexes

Annexe 1 – List of Logistics Firms' sample

Logistics Firm	Home Country	Website
AAA Cooper	United States America	http://www.aaacooper.com/
Aeroflot Russian Airlines	Russia	https://www.aeroflot.ru/xx-en
Agility	Kuwait	https://www.agility.com/en/homepage/
Air Canada	Canada	https://www.aircanada.com/ca/en/aco/home.html
Air China	China (Mainland)	http://www.airchina.com.cn/en/
Air France-KLM	France	https://www.airfranceklm.com/en
Air India	India	http://www.airindia.in/
Air New Zealand	New Zealand	https://www.airnewzealand.eu/
American Airlines	United States America	https://www.aa.com/homePage.do?locale=en_US
ANA Group	Japan	https://www.ana.co.jp/en/us/
APM-Maersk	Denmark	https://www.maersk.com/
ArcBest	United States America	https://arcb.com/
Asiana Airlines	South Korea	https://flyasiana.com/C/KR/EN/index
Atlas Air	United States America	http://www.atlasairworldwide.com/
Averitt Express	United States America	https://www.averittexpress.com/
BG Freight Line	Netherlands	http://bgfreightline.com/
BLG Logistics	Germany	https://www.blg-logistics.com/en
BNSF Railway	United States America	https://www.bnsf.com/

BOLLORE Logistics	France	https://www.bollore-logistics.com/en
Bochard Lines	United Kingdom	https://www.borlines.com/
C.H. Robinson	United States America	https://www.chrobinson.com/en-us/
Cardinal Logistics Holdings	United States America	https://www.cardlog.com/
Caribbean Feeder Services	United States America	https://www.caribbeanfeeder.com/
Cathay Pacific Group	Hong Kong	https://www.cathaypacific.com/cx/en_HK.html
Ceva Logistics	Switzerland	https://www.cevalogistics.com/
China Airlines	Taiwan	https://www.china-airlines.com/cn/en
China Eastern Airlines	China (Mainland)	https://us.ceair.com/en/
China Navigation	Singapore	http://www.swirecnco.com/
China Southern Airlines	China (Mainland)	http://www.csair.com/en/index.shtml
CMA CGM	France	https://www.cmacgm-group.com/en/
Cool Carriers	Sweden	http://www.cool.se/
COSCO Group	China (Mainland)	http://lines.coscoshipping.com/home/
CSX Transportation	United States America	https://www.csx.com/
Damco	Denmark	https://www.damco.com/
Delta Air Lines	United States America	https://www.delta.com/
DHL Supply Chain	Germany	https://www.dpdhl.com/en.html
DSV	Denmark	http://www.dsv.com/
Eimskip	Iceland	https://www.eimskip.com/
El Al Israel Airlines	Israel	https://www.elal.com/en/

D. C.	III I A A D I I	
Emirates	United Arab Emirates	https://www.emirates.com/english/
EVA Air	Taiwan	https://www.evaair.com/en-global/index.html#
Evergreen Line	Taiwan	https://www.evergreen-line.com/
Expeditors International	United States America	https://www.expeditors.com/
FedEx Supply Chain	United States America	https://www.fedex.com/en-us/home.html
Finnair	Finland	https://company.finnair.com/en
Garuda Indonesia	Indonesia	https://www.garuda- indonesia.com/id/en/index.page?
Grimaldi	Italy	https://www.grimaldi.napoli.it/en/index.html
Hainan Airlines	China (Mainland)	https://www.hainanairlines.com/CN/GB/Home
Hapag-LIoyd	Germany	https://www.hapag-lloyd.com/en/home.html
Harbour-Link Group Bhd	Malaysia	https://www.harbour.com.my/
Heung-A Shipping	South Korea	http://www.heung-a.com/
Hub Group	United States America	https://www.hubgroup.com/
Hyundai M.M.	South Korea	https://www.hmm21.com/cms/company/engn/index.jsp
IAG Group	United Kingdom	https://www.iairgroup.com/
J.B. Hunt Transport	United States America	https://www.jbhunt.com/
Japan Airlines	Japan	https://www.jal.co.jp/en/
Jet Airways	India	https://www.jetprivilege.com/
Knight-Swift Transportation Holdings	United States America	http://knight-swift.com/

Korean Air	South Korea	https://www.koreanair.com/global/en.html
Kuehne + Nagel Inc.	Switzerland	https://home.kuehne-nagel.com/
Landstar System, Inc.	United States America	https://www.landstar.com/
LATAM Group	Chile	https://www.latam.com/en_un/
Log-ln Logistica	Brazil	http://www.lntransportes.com.br/
Lufthansa	Germany	https://lufthansa-cargo.com/home
Matson Logistics	United States America	https://www.matson.com/
Milaha (Qatar Navigation)	Qatar	http://www.milaha.com/
Miller Intermodal Logistics Services, Inc.	United States America	http://www.mils3pl.com/
Nippon Express	Japan	https://www.nipponexpress.com/
Nirint Lines	Netherlands	https://nirint.com/
Norfolk Southern Corporation	United States America	http://www.nscorp.com/content/nscorp/en.html
Old Dominion Freight Line	United States America	https://www.odfl.com/Home/
Pan Ocean	South Korea	https://www.panocean.com/en
Panalpina	Switzerland	https://www.panalpina.com/www/global/en/home.html
PIL (Pacific Int. Line)	Singapore	https://www.pilship.com/en-pil-pacific- international-lines/1.html
Prologis	United States America	https://www.prologis.com/
Propak Logistics	United States America	http://www.propak.com/
Qantas Airways	Australia	https://www.qantas.com/au/en.html

Qatar Airways	Qatar	https://www.qatarairways.com/en/homepage.html
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Radiant Logistics	United States America	https://www.radiantdelivers.com/
RCL (Regional Container L.)	Thailand	https://www.rclgroup.com/
Ryder	United States America	https://ryder.com/
SAIA LTL Freight	United States America	https://www.saia.com/home
Samskip	Netherlands	https://www.samskip.com/
Samudera	Indonesia	http://ssl.samudera.id/ssl/
SAS Scandinavian Airlines	Sweden	https://www.flysas.com/en/
SASCO (Sakhalin Shipping co)	Russia	http://www.sasco.ru/en-main-page-op-i1
Schneider	United States America	https://schneider.com/
Shin Yang Shipping Sdn Bhd	Malaysia	https://www.syshippingcorp.com.my/
Shipping Corp. of India	India	http://www.shipindia.com/
Singapore Airlines	Singapore	https://www.singaporeair.com/en_UK/sg/home#/book/bookflight
Sinotrans	China (Mainland)	http://www.sinotrans.com/col/col3771/index.html
SITC	Hong Kong	http://www.sitc.com/en/yewu/
Southeastern Freight Lines	United States America	https://www.sefl.com/seflWebsite/index.jsp
Thai Airways	Thailand	https://www.thaiairways.com/en/index.page?
Turkish Airlines	Turkey	https://www.turkishairlines.com/en-int/

U.S. Xpress	United States America	https://www.usxpress.com/
Union Pacific Railroad	United States America	https://www.up.com/index.htm
United Airlines	United States America	https://www.united.com/en/us/
Universal Logistics Holdings	United States America	https://www.universallogistics.com/
UPS	United States America	https://www.ups.com/us/en/Home.page
Veritiv	United States America	https://www.veritivcorp.com/
Vinalines	Vietnam	http://vinalines.com.vn/en/home/
Virgin Atlantic	United Kingdom	https://www.virginatlantic.com/
Wan Hai Lines	Taiwan	https://www.wanhai.com/views/Main.xhtml
Werner Enterprises/Werner Logistics	United States America	http://www.werner.com/
XPO Logistics	United States America	https://www.xpo.com/
X-Press Feeders Group	Germany	https://www.x-pressfeeders.com/
Yang Ming Marine Transport Corp.	Taiwan	https://www.yangming.com/
Yusen Logistics	Japan	https://www.yusen-logistics.com/en/