

**Radboud University**



# **Culture and Social Responsibility: The influence of cultural differences on CSR in Emerging Markets**

Master Thesis

MSc International Business

Business Administration

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## Abstract

This Master Thesis examines how cultural differences among emerging countries influence companies' (both local firms and multinationals) Corporate Social Responsibility Engagement, also accounting for the moderating effect of these firms' degree of internationalization. Most of the data used for this study was retrieved from the Refinitiv Eikon database while the scores regarding the three Hofstede cultural dimensions (Individualism, Masculinity and Long-Term orientation) were retrieved from the site [geerthofstede.com](http://geerthofstede.com); access to the terminals was provided by Radboud University. This resulted in a sample of 1006 firms from 26 different emerging countries. In order to test the various hypotheses of this master thesis, a Multiple Regression Analysis was performed using the software SPSS. The results show that Individualism seems to be positively associated to CSR engagement, while Masculinity and, surprisingly, Long-Term Orientation were found to be negatively related to CSR Engagement. Unfortunately, no statistically significant effects were found regarding the moderating effect of the degree of internationalization.

Keywords: Culture, Emerging Markets, CSR, Degree of Internationalization

Paper type: Master Thesis

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## 1. Introduction

### 1.1 Background

Together with globalization, social issues like environmental pollution and shortage of resources have become important problems all over the world, resulting in the companies' need to modify their business plans in order to be more socially responsible. Nowadays social pressure on firms is increasing and businesses are expected to respond appropriately (Gao, 2011). Laufer (2003) reports that in the USA at least 1\$ out of every 8\$ is devoted to corporate social responsibility practices, contributing to the increasing pressure on companies and managers to discuss their CSR issues. These pressures, which used to be mostly beared only by developed markets firms (already possessing the assets and resources to deal with it) are currently extending to emerging countries as well (Cheung et al., 2010). The globalization of markets is also calling for interactions between people coming from different cultures and with different nationalities, showing therefore different expectations on firms' social role as well as their corporate social responsibility practices (Burton et al., 2000).

Levels of corporate social responsibility engagement still vary a lot between countries, and, among the many factors causing this imbalance, one of the most relevant are cultural differences. This means that depending on their culture, people have different views of what is socially right or wrong, what is acceptable and what is not (Ho et al., 2012). Hofstede (1983) defines culture as a "collective mental programming": people from the same area or nation share the same one, while members of other countries possess completely different ones.

One of the most relevant topics concerning corporate social responsibility is environmental concern. Milfont et al. (2006) argues that this aspect mirrors an individual's feelings and ideas about environmental problems: managerial choices depend on various factors, including culture itself (Cho et al., 2013). Apart from the environmental aspect, CSR is usually related to social and corporate governance topics as well which can be influenced by cultural factors. An extensive empirical study on country-level institutions has revealed that a huge proportion (35%) of

companies' divergence in CSR engagement around different countries depends on country-level factors such as culture (Ioannou & Serafeim, 2012).

Despite the growing importance of the subject, as of today little research has been done regarding the motives and drivers of CSR, with the existing body of research mainly focusing on developed countries (Matten, Moon, 2008). Therefore, it would be interesting and useful to analyze and interpret how a national-level institution such as culture affects CSR engagement in emerging markets.

Due to the relative instability of emerging countries compared to developed ones, governance, social and environmental problems usually have a much bigger impact, both from the positive and negative sides. These countries embody some of the fastest expanding markets in the world, which make them cost-efficient growth markets for many large businesses (Visser, 2008). Moreover, many researchers argue that findings and frameworks drawn for developed countries aren't transferable to emerging ones, another aspect enhancing the need to study CSR in these types of markets (Jamali & Karam, 2016).

Particularly for firm deciding to expand internationally, CSR constitutes an important tool both to defend firm's reputation from pressures stemming from diverse stakeholder bases as well as (Brammer et al., 2009) to realize economies of scope (Kang, 2013).

Based on the arguments previously stated, the research question of this master thesis is formulated in the next section.

## 1.2 Research question

The research question of this master thesis is the following:

How do cultural differences among emerging markets affect firms' Corporate Social responsibility engagement by local and multinational firms? How does the degree of internationalization of these firms moderate this relationship?

### 1.3 Relevance

This study aims at building on the already existing literature on the drivers of corporate social responsibility in emerging economy firms, a topic which is gaining much relevance in the latest years, also considering the recent effects of climate change. In light of today's increasing concern for environmental preservation and income disparity around the world, there's an increasing need for social research in emerging countries as well (Voinea, 2018).

From an academic point of view, one of the various challenges that CSR scholars are facing is recognising which factors lead companies in emerging markets to act in a socially responsible way, and little research has been done on this topic (Li et al., 2010). Moreover, CSR and its drivers have been largely analysed by many researchers at the intra-country level, while there is a very limited number of studies that did this comparatively (i.e. at the cross-cultural level) (Arthaud-Day, 2005). While a lot of research has been conducted regarding CSR in emerging countries (Cheung et al., 2010; Shirodkar et al., 2018; Muller & Kolk, 2009; Yin & Jamali, 2016), previous studies largely overlooked or neglected the role of nationality, an aspect which is central to this master thesis.

One of the main goals of this thesis is to provide theoretical linkages between national cultural differences in emerging markets and the overall level of social responsibility engagement. Furthermore, this paper provides insights on which cultural dimensions favour aspects such as corporate governance as well as social and environmental consciousness.

The findings may be very helpful for marketers, policy makers and managers in applying CSR strategies and business models in different emerging countries based on their respective national culture, also shedding light on which emerging markets are particularly careful about the social impact of their businesses and which characteristics drive this behaviour.

## 1.4 Thesis Outline

This master thesis is organized in six chapters. This first chapter provided insights on the objective and relevance of the research question. The second chapter consists of a literature review on Corporate Social Responsibility, addressing its relevant definitions, key drivers and its relationship with both emerging markets and culture. The research hypotheses and the conceptual model will be outlined in the second section as well. Subsequently, chapter 3 will provide information regarding the research methodology, discussing the analytical technique applied, sample, data sources and variables used. Next, chapter 4 will provide a report of the data analysis results, which will be interpreted in chapter 5. Finally, practical and managerial implications of the findings will be addressed in chapter 6, the conclusion of this thesis, which ends by outlining the limitations of the study and by providing directions and suggestions for future research regarding the topic.

## 2. Theoretical Framework

### 2.1 Corporate Social Responsibility

#### 2.1.1 Defining CSR

As already stated, in the latest years, the traditional idea that companies should only focus on their business efficiency, income and profits has been increasingly criticised. Nowadays companies are also required to consider other environmental, social and governance problems and to adapt their business plans in order to play their part in contributing to societal goals of various nature (Luthans et al., 1980). While in the past Corporate Social Responsibility was viewed as a form of voluntary corporate self-regulation, now many countries have mandatory standards of compliance. Thus, more and more managers feel as they have a responsibility to take wider needs into account besides the economic aspect of their business (Holmes, 1976). Even if there may be disagreements regarding the scope, interpretation and approach to CSR, majority of researchers agree on the necessity for firms to assess social problems, trying to advance solutions in order to provide better outcomes for the society as a whole (Ho et al., 2012).

Despite the fact that firm's social concern can be already found centuries back in time, the first formal publications and literature on CSR starts appearing around the 1930s (Carroll,1999). Howard R. Bowen's "Social Responsibilities of the Businessman" (1953), regarded as one of the earliest relevant books on the subject, could be looked at as the starting point of the modern era of corporate social responsibility (Carroll, 1979). This book represents the first comprehensive discussion of business ethics and CSR, expressing a moral approach towards a company's behaviour in the social environment. Bowen, considered by many the "Father of Corporate Social Responsibility", provided the first academically accepted definition of CSR, defining the social responsibilities of business executives as "the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (Bowen, 1953).

Another relevant definition is given by the World Business Council for Sustainable Development, which describes CSR as "the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society as large" (Castka et al., 2007).

In other words, CSR embodies the social imperatives as well as the consequences of business success, it expresses those practices that represent a company's responsibility towards a social benefit.

Following Bowen's work, many authors and researchers gained interest in social behaviour and corporate social responsibility and tried to define it: the next paragraphs give an overview of the most relevant ideas and perspectives on CSR to provide a clear explanation of the concept.

### 2.1.2 The stakeholder perspective

Stakeholder theory holds that a firm's actions and behaviour can influence many different groups in our society (Freeman, 1984). Even though the already large literature on Corporate Social Responsibility is always expanding, defining the

concept can result very difficult, also because of the various perspectives from which CSR can be looked at (Matten & Moon, 2004).

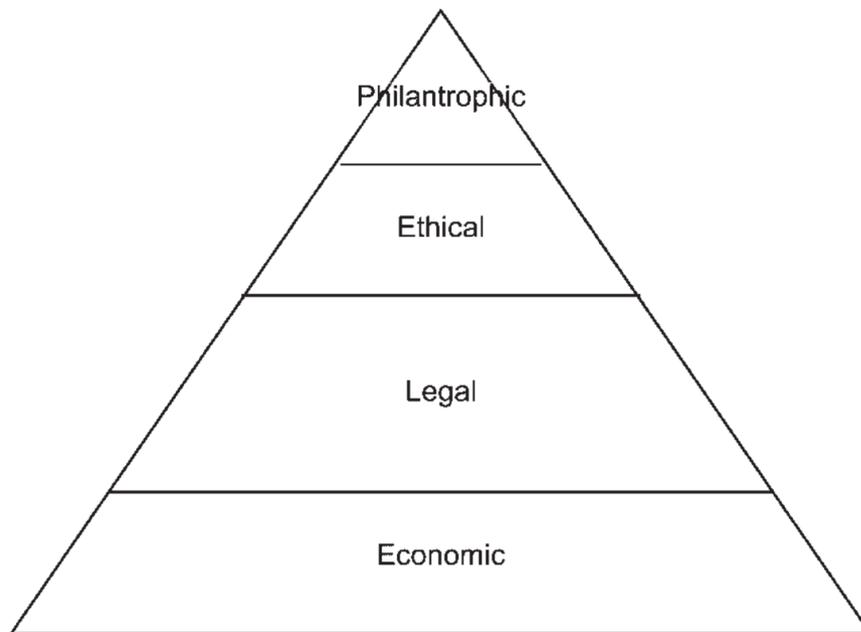
Dahlsrud (2008) grouped 37 CSR definitions into 5 different perspectives, or dimensions, namely “stakeholder, social, economic, voluntariness and environmental” (Dahlsrud, 2008). The stakeholder perspective argues that the corporation exists not only to benefit its shareholders, but also every person that has an interest in the company and can either affect or be affected by the business, (employees, suppliers, customers..). Representatives of this perspective, one of the most addressed when dealing with CSR, argue that corporations’ liabilities towards society should be centered on helping the community, creating job opportunities, protecting the environment and developing better relationships with employees (Su, Jie, 2015). Stakeholders represent a crucial element for the success of CSR practices, in fact more and more authors are seeing their engagement in firm’s activities as “the essence of CSR” (Holmes, Watts, 2000). Managers need to be able not only to understand who is to be considered a stakeholder, but also how to interact with them depending on their norms, values, morals and ethics. All these cultural aspects should be taken into account before making important decisions, since they influence to a large extent stakeholders perceptions, affecting what they may see as right or wrong (Freeman, 1984, Donaldson & Preston, 1995, Friedman & Miles, 2002).

### 2.1.3 Carroll’s Framework

Archie B. Carroll (1979), one of the main proponents of corporate social responsibility, elaborated a framework that explains how and why firms should take social responsibility. Carroll’s definition of CSR was formulated as follows:

“Corporate social responsibility encompasses the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point in time” (Carroll 1979, 1991). Carroll re-elaborated and improved his model organizing the four types of corporate responsibilities (sometimes referred to as Carroll’s “Four Faces” of Corporate Social Responsibility) in a pyramid, as shown in figure 1. Only after the Economic, Legal and Ethical elements of the pyramid are

dealt with a firm can proceed to focus on the philanthropic expectations: the pyramid gives a sort of priority order to the various elements. The four categories are further explained in the next paragraph.



Carroll's pyramid of CSR (Carroll, 1991)

Economic responsibilities represent the primary social responsibility of a business. Since a business is regarded as the basic economic unit of society, its first responsibility is to make and sell goods and services at a profit (Carroll, 1979).

Legal responsibilities speak for the obligation of firms to abide by the rules and regulation of law, which act as a constraint for businesses to act in a certain way and within definite boundaries. Legal responsibilities refer to a company's duty to meet these legal requirements (Carroll, 1991).

In addition to the ethical norms expressed in the first two "faces" of corporate social responsibility, there are additional ethical requirements which are not legally binding but are expected by society. Although these ethical responsibilities have been largely emphasised, it may be difficult to decide what is ethical and what is not. In a nutshell, this element of the pyramid can be referred to as a society's expectations

of a business' behaviour beyond legal requirements.

Last but not least, the discretionary/philanthropic element embodies actions which are completely voluntary and above both legal and ethical requirements. The decision to assume this type of responsibility is completely led by a firm's desire to devote itself to society and contribute in improving people's lives (Carroll, 1979). Carroll developed his framework focusing on developed, capitalistic countries. Later on, Visser (2011) argued that this model could also be applied to developing countries, with the philanthropic element gaining more importance and coming right after the economic responsibility. Even if there are substantial differences between emerging markets and developing ones, this suggests that the pyramid could also apply to CSR in emerging economies.

#### 2.1.4 CSR Drivers

CSR practices are in most cases very expensive to implement and usually they don't lead to an immediate profit for the firm (Hopkins, 2006), therefore, companies deciding to implement such practices have clear reasons to do so, especially in the emerging markets context. Most of the articles and studies exploring CSR antecedents tend to focus on individual personal values, organizational and institutional factors (Campbell, 2007; Chih, Chih and Chen, 2010; Moon, 2004), while the cultural influences are neglected or given less attention: it's here that this research contributes.

In this paragraph, four general CSR drivers will be outlined: personal values, organizational factors, institutional factors and, last but not least, cultural influences. Since the relationship between culture and CSR is the main subject of this thesis, this topic will be further explored in section 2.3.

Personal values, beliefs and interests largely affect individual managers when it comes to making business decisions. Managers personal values have been extensively studied both generally (Lincoln et al., 1982, Bigoness and Blakely, 1996) and specifically (Rallapalli et al., 2000; Wood, 1991). Harris et al. (2002) stressed the importance of the influence of managers' beliefs in adopting a green approach for

their business. Personal values are likely to translate into corporate values, since both managers and employees bring their beliefs into the work setting (Robertson, 1991). Moreover, preferences and life experiences drive human behaviour and can therefore affect manager's inclinations regarding CSR (Wood, 1991).

Regarding the organizational drivers of CSR, some of the most relevant are firm's ownership (Cho et al., 2013; Gao, 2011) structure, size and age (included as control variables in this thesis), but also a company's strategy or trade orientation could act as important drivers of corporate social responsibility engagement (Cruz et al., 2015). Organizational factors also include a company's ethics, linking these drivers to the cultural ones.

Institutional factors are of major importance for emerging markets, since many firms try to use CSR as a tool to try and fill the various 'governance gaps' left by fragile governments in areas such as housing and education (Crane et al., 2008).

Institutional antecedents translate into geopolitical environment of the country, including the governance and financial systems, level of economic development (Chapple & Moon, 2005) and the availability of a permissive business setting (Resnik 2001). Furthermore, other institutional drivers include globalization pressure, political embeddedness, normative social pressure and national ecosystem (Mitra, 2012).

Concerning the cultural factors, many scholars have already demonstrated that some cultures are more oriented towards CSR than others, suggesting that specific cultural traits play a role when it comes to ethical decision-making. Other articles have stressed the importance of cultural values in interpreting and adopting CSR, acknowledging the relevance of customs and values such as religion (Beekun and Badawi 2005; Gustavson 2011). As already noted, even though many authors investigated the role of CSR in the emerging markets context and there is already a large body of literature on this specific topic, most studies paid less heed to the role played by national culture in this realm.

## 2.2 CSR in emerging countries

As already mentioned, most part of the literature regarding corporate social responsibility and sustainability is focused on developed countries and economies, where these practices are largely enforced due to the relatively solid and stable political and economic conditions. However, since CSR is seen as an effective tool in advocating values such as equality, transparency and social justice, emerging markets are probably the ones which need it the most (Voinea, 2008). In fact, more and more authors started to focus on emerging markets and their social practices (Cappellin and Giuliani, 2004; Baughn et al., 2007; Chapple and Moon, 2005; de Oliveira 2006; Roper and Weymes, 2007 to cite some of them). As it's easy to predict, all these studies agreed that emerging markets fail to maintain the pace of developed countries when it comes to corporate social responsibility practices (Welford, 2004). Some of the most serious problems that emerging countries' companies need to approach include poverty, corruption, violation of human rights and social exploitation (Voinea, 2008). Moreover, the United Nations are promoting the enactment of social initiatives relating to sustainability specifically in these countries.

## 2.3 Culture and CSR

Since different societies present completely diverse market environments depending on aspects like institutions, social relationships and values, it's straightforward to imagine that these societies show some degree of divergence in what they consider socially desirable outcomes and, consequently, in their corporate social responsibility engagement (Matten, Moon, 2008).

Indeed, in many emerging markets, firms are not presumed to be as responsive to social or environmental problems as firms from other developed countries (Robinson, 1978). Several scholars have found that a society's cultural background affects various inner ethical aspects (Ioannou & Serafeim, 2012). Although the influence of cultural dynamics in CSR participation is being given more and more attention (e.g. Ringov & Zollo, Ioannou & Serafeim, 2012, Ho et al. 2011), the role of

national culture as a key driver has not been studied extensively regarding emerging countries (Halkos & Skouloudis, 2017).

There is an increasing need for comparative research on cultural differences in CSR engagement (Visser, 2008). Most of previous literature on the subject has taken into account only few countries at a time: Franke and Nadler (2008), for example, expressed the need for larger samples of countries in order to provide a more comprehensive analysis. Ringov and Zollo (2007), Waldman et al. (2006) and more recently Thanetsunthorn (2015) are all examples of previous studies linking culture and CSR; these studies report conflicting findings on various cultural dimensions, (for example on the type of impact a cultural dimension like individualism could have on CSR (Ioannou & Serafeim, 2012; Ringov & Zollo, 2007)), highlighting the fact that more research on the subject is needed (Peng et al., 2012).

Furthermore, given the presence of institutional voids in emerging countries, meaning the “lacunae created by the absence of market intermediaries” (Khanna & Palepu, p.14, 2010) the effect of these cultural differences could differ a lot from what was previously found for developed countries.

In light of the inconsistent empirical findings and limited understanding of how cultural differences impact CSR adoption, this thesis’ aim is to shed more light on the influence of national culture on CSR engagement of emerging market local firms as well as those embracing international activities.

## 2.4 Hofstede dimensions

Professor Geert Hofstede, a Dutch social psychologist, was one of the most important pioneers of cross cultural research. He conducted arguably the most extensive studies of cultures influence on the workplace and its values. Hofstede defines culture as “the collective programming of the mind distinguishing the members of one group or category of people from others” (Hofstede, 1980).

The Hofstede Cultural Dimensions Theory is a useful framework to get insights on cultural differences across countries as well as the impact they have on the business and social environment. Hofstede used factor analysis to study IBM employees working in more than 50 countries. Originally, the theory included four dimensions

that could distinguish between different cultures. Subsequently, he added two more dimensions with the help of Drs. Michael H. Bond and Michael Minkov. (VSM, 2013)

The six dimensions include power distance (the extent to which uneven distribution of power is accepted by the less powerful members of the country), uncertainty avoidance (the lack of tolerance of risk and ambiguity), individualism vs. collectivism (the tenacity of the ties that people have with each other within their society), masculinity vs. femininity (the extent to which a culture values work goals and determination versus personal goals and modesty), Long-Term orientation vs. Short-Term orientation (the extent to which a culture is oriented to the future and focuses on long-term goals), indulgence vs. restraint (degree to which a society allows comparatively free gratification of people's own desires and emotions, like enjoying life and having fun) (Hofstede & Minkov, 2010). Since Hofstede's framework publication, many different studies adopted the dimensions, which are still very relevant in in cross-cultural research.

Based on a conceptual reflection, in this master thesis only three of the six dimensions were selected in order to focus on the ones offering the most meaningful theoretical linkage with CSR engagement. The selected dimensions are discussed in the following sections.

#### 2.4.1 Individualism

Individualism is the opposite of collectivism. Individualistic cultures tend to give importance to values such as personal time, freedom, independence and generally put their own interests before other peoples' needs (Hofstede, 1980; Triandis, 1995). Collectivists, on the other hand, put much more concern on the social good and are integrated into strong and united groups. In one of his studies, Akaah (1990) argues that workers from individualistic companies act in a less ethical way than the ones from collectivistic firms. Thus, while keeping in mind that CSR largely depends on the context and the situation that the firm is facing (Porter, 2013), one would expect that in both developed and emerging countries individualistic societies to care less

about the social impact of their business compared to collectivistic societies. This leads to the following hypothesis:

H1: An individualistic culture will have a negative impact on CSR engagement by emerging economy firms.

#### 2.4.2 Masculinity

Masculinity is the opposite of femininity. Highly masculine societies prefer values such as power, competition, strength, career development and individual achievement over feminine values such as inclusion, cooperation, modesty and social support (Hofstede, 1984). A study on SMEs from Australia, Finland, Greece, Indonesia, Norway, and Sweden found that people belonging to masculine economies tend to show a lower appreciation for cooperative strategies (Steensma et al., 2000). Moreover, experimental evidence from Tice and Baumeister (2004) shows that masculinity discourages helping and supporting behaviours, while femininity generally includes dimensions such as communion and empathy. Even though most studies connecting masculinity to corporate social responsibility practices only involve developed countries (Ioannou & Serafeim, 2012; Ho et al., 2011), it's expected that the same may apply for emerging economies as well. As already stated, no matter what the environment is, a feminine society will be much more characterized by a sympathy for the weak and an enhanced sense of duty to help promoting social progress (Hofstede, 2011). Hence, the following hypothesis can be developed:

H2: A masculine culture will have a negative impact on CSR engagement by emerging economy firms.

#### 2.4.3 Long-Term Orientation

Long Term orientation is the opposite of short-term orientation. Perseverance, austerity and adaptation are typical values of long-term oriented societies (VSM, 2013). Long-term oriented cultures are more concerned about the future while short-term societies tend to focus only on the present and the past (Halkos, Skouloudis, 2017). In order to take part into corporate social responsibility practices, a firm need to have a long-term focus, being capable of taking into account all the future

spendings and strategies. The stakeholder literature advocates that a long-term perspective makes a firm more inclined to invest in stakeholder relationships (Flammer & Bansal, 2017), plus, CSR is expected to have positive effects especially in the long-term (Purnamasari et al. (2015). Thus, it's logical to expect that firms from countries scoring high on long-term orientation will tend to be more environmental-friendly and will be better prepared to undertake CSR strategies (Lee et al., 2016). The following hypothesis is developed:

H3: A long-term oriented culture will have a positive impact on CSR engagement by emerging economy firms.

## 2.5 Degree of Internationalization

A company's internationalization is intended as "the process through which a firm expands the sales of its goods or services across the borders of global regions and countries into different geographic locations or markets" (Hitt et al. 2007, p. 251). CSR and internationalization are two strategies which are often looked at as interdependent since they can influence each other reciprocally (Barney, 1991; Freeman, 1984). Both strategies can be very helpful to companies when it comes to accessing or establishing specific resources like market knowledge or reputational capital which act as a gateway to competitive advantages (Aguilera-Caracuel et al., 2014). Since companies involved in international activities are more exposed to public opinion, they face the problem of being judged and scrutinised by many more stakeholders. One way to avoid the greater risk of gaining a bad reputation resulting from their negative actions (Hah & Freeman, 2013) and to demonstrate the capability of being responsive to different stakeholders contexts is to engage in CSR practices (Brammer et al., 2009). Moreover, Marano et al. (2017) argue that the presence of institutional voids (common in the emerging markets context) favors CSR adoption. Internationalization brings lots of advantages, but it simultaneously generates legitimacy problems (Marano et al., 2017) stemming from the liability of foreignness, especially for emerging markets' firms. CSR facilitates firm's process towards legitimacy and helps firms consolidating their competitive advantage in the international environment. Thus, given its positive relationship with CSR (Brammer et al., 2009; Kang, 2013) it is expected that the degree of internationalization of

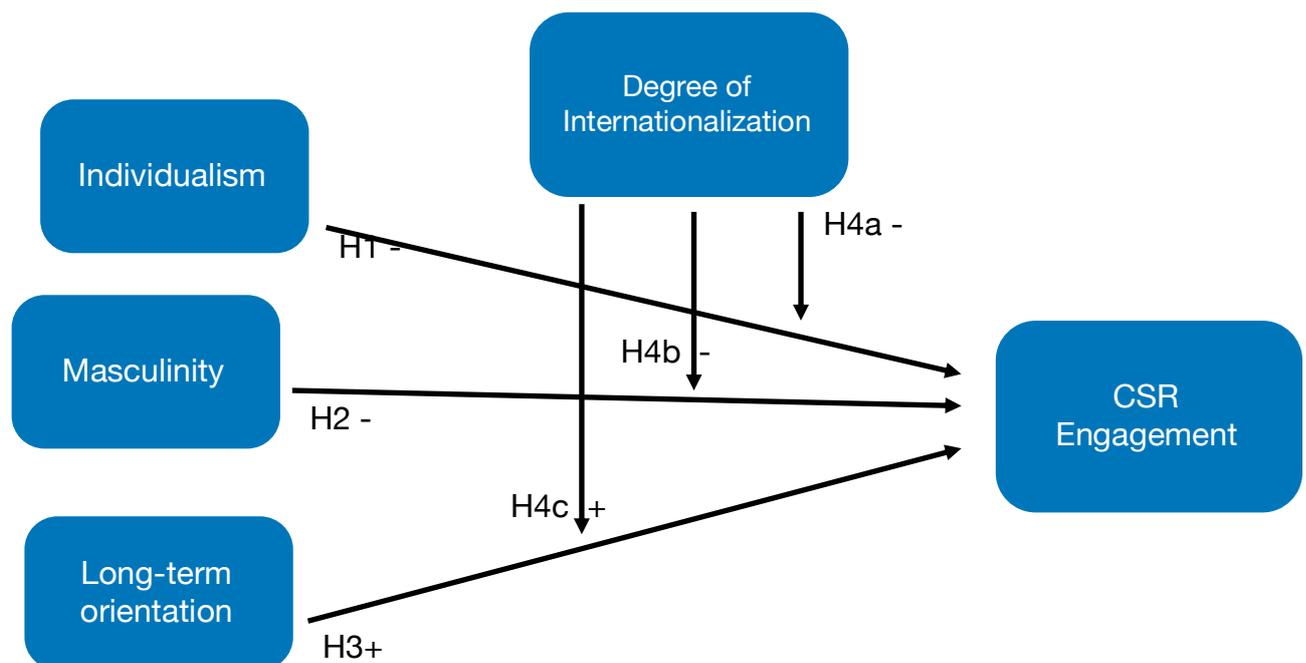
emerging countries' firms will weaken the hypothesized negative relationships between individualistic and masculine cultures and CSR engagement while it will strengthen the positive relationship between the long-term orientation of a country and firms' CSR engagement. Based on the foregoing, the following hypotheses can be adopted:

H4a: the firm's degree of internationalization will negatively moderate the negative relationship between individualism and CSR engagement by emerging economy firms;

H4b: the firm's degree of internationalization will negatively moderate the negative relationship between masculinity and CSR engagement by emerging economy firms;

H4c: the firm's degree of internationalization will positively moderate the positive relationship between Long-term orientation and CSR engagement by emerging economy firms.

## 2.5 Conceptual Model



### 3. Methodology (5-8)

#### 3.1 Data Source and Sample

Only well-established sources were used to retrieve the data in order to increase both validity and reliability. For this research, data from Refinitiv Eikon database was retrieved to construct the sample. Eikon is the world's most comprehensive financial data platform including 65 years of data information on financial markets, listed companies financial data, news and macro data. The database provides information about a broad area of firms from multiple industries, using more than 2000 contributing sources that make it very accurate and trustworthy. Specifically, on February 2019, Thomson Reuters (name of the company before changing it in 'Refinitiv') offered a document including the newest ESG scores. The ESG score is a general score including Environmental, Social and Governance scores of different companies in the type of quantitative data. Further information on how this score is designed will be given in the "Dependent Variable" Section.

Firms with missing values are going to be excluded from the sample. Before checking for missing data, the data sample consisted of (number) emerging market firms, but most of the ESG data was available only for the latest years (2016-2019). Through Eikon it's possible to access and use Thomson One's ASSET4 ESG database, which provides objective, relevant and systematic environmental, social and governance (ESG) information based on more than "key performance indicators" (KPIs) and more than 750 individual data points along with their original data sources. ASSET4 is a company that collects, and sells, objective and comparable ESG information to institutions. After selecting firms for which CSR score is available, information on the degree of internationalization was also extracted from the same database.

The focus of this research are emerging countries, therefore one of the first things to do is to develop a clear list of emerging markets. Many organizations created their own list of emerging countries, and one of the most reliable is the one provided by MSCI. MSCI (Morgan Stanley Capital International) is an American finance company, provider of fixed income, equity, hedge fund stock market indexes, and multi-asset

portfolio analysis tools. The MSCI Market Classification Framework takes into account the following criteria: economic development, size and liquidity requirements and market accessibility. (MSCI Market Classification Framework, 2019). The framework is clarified in table 3.1.

Criteria	Frontier	Emerging	Developed
A Economic Development  A.1 Sustainability of economic development	No requirement	No requirement	Country GNI per capita 25% above the World Bank high income threshold* for 3 consecutive years
B Size and Liquidity Requirements B.1 Number of companies meeting the following Standard Index criteria Company size (full market cap)** Security size (float market cap)** Security liquidity	2 USD 776 mm USD 61 mm 2.5% ATVR	3 USD 1,551 mm USD 776 mm 15% ATVR	5 USD 3,102 mm USD 1,551 mm 20% ATVR
C Market Accessibility Criteria C.1 Openness to foreign ownership C.2 Ease of capital inflows / outflows C.3 Efficiency of operational framework C.4 Availability of Investment Instrument C.5 Stability of the institutional framework	At least some At least partial Modest High Modest	Significant Significant Good and tested High Modest	Very high Very high Very high Unrestricted Very high

\* High income threshold for 2018: GNI per capita of USD 12,056 (World Bank, Atlas method)  
 \*\* Minimum in use for the May 2019 Semi-Annual Index Review, updated on a semi-annual basis

table 3.1, MSCI Market Classification Framework, June 2019

The list of countries considered as emerging resulting from this classification network can be seen below in table 3.2. The list includes 26 countries in total, specifically 6 from the Americas (all from South America with the exception of Mexico), 5 from Europe, 5 from Middle East, 1 from Africa and 9 from Asia. Descriptive statistics of the sample has been computed to give a general outline of the variables used in the research and will be provided at the end of this chapter.

	<b>Emerging Markets</b>	
<b>Americas</b>	<b>Europe, Middle East &amp; Africa</b>	<b>Asia</b>
Argentina	Czech Republic	China
Brazil	Egypt	India
Chile	Greece	Indonesia
Colombia	Hungary	Korea
Mexico	Poland	Malaysia
Peru	Qatar	Pakistan
	Russia	Philippines
	Saudi Arabia	Taiwan
	South Africa	Thailand
	Turkey	
	United Arab Emirates	

table 3.2, MSCI Market Classification Framework, June 2019

## 3.2 Variables

### 3.2.1 Dependent Variable

The ESG combined score from Refinitiv was used as a proxy for my dependent variable, Corporate Social Responsibility engagement.

ESG scores by Refinitiv, based on 178 relevant fields to improve the general firm assessment, are created to provide an objective and transparent measure of “a company’s relative ESG performance, commitment and effectiveness across 10 main themes, namely Resource Use, Emissions, Innovation, Workforce, Human Rights, Community, Product Responsibility, Management, Shareholders and Corporate Social Responsibility Strategy” (Refinitiv, 2019). These categories are grouped into three main Pillars - Environmental, Social and Governance - as it’s shown in table 3.3. These three pillars scores make up for the final ESG score, representing the various firms’ ESG engagement and performance based not only on the annual report, but also relying on information of the company’s website, NGO websites, Stock Exchange Filings, CSR reports and news sources (Refinitiv, 2019).

	ESG Score	
<b>Environmental</b>	<b>Social</b>	<b>Governance</b>
Resource Use	Workforce	Management
Emissions	Human Rights	Shareholders
Innovation	Community	CSR strategy
	Product Responsibility	

table 3.3, Refinitiv, 2019

The scores go back to 2002 and are accessible for more than 7000 companies around the world. Unfortunately, in most cases the data available for Emerging countries firms' was limited, representing one of the main limitations of this research.

The ESG combined score results from the "normal" ESG score (designed as already explained above) minus the ESG controversies score, computed based on 23 ESG controversy topics. This is an important step since these controversies have a huge negative impact on a firm's Corporate Social Responsibility and therefore they must be taken into account. Examples of controversies are scandals like lawsuits, fines or legislation disputes (Refinitiv, 2019).

### 3.2.2 Independent Variables

This section will provide an outline of the list of independent variables, Hofstede's cultural dimensions, also providing their definition and explanation presented by Geert Hofstede. As already stated in the hypothesis development section, for this research it was decided to include only three of the six Hofstede dimensions, including the ones offering the strongest theoretical justification (individualism/collectivism, masculinity/femininity, long-/short-term orientation). The country scores of the six Hofstede dimensions are available online at [geerthofstede.com](http://geerthofstede.com).

- Individualism/collectivism dimension: "the extent to which people feel independent, as opposed to being interdependent as members of larger wholes" (de Mooj, Hofstede, 2010);

- Masculinity/Femininity dimension: “The dominant values in a masculine society are achievement and success; the dominant values in a feminine society are caring for others and quality' of life” (de Mooj, Hofstede, 2010);
- Long-/short-term orientation dimension: “the extent to which a society exhibits a pragmatic future-orientated perspective rather than a conventional historic or short-term point of view” (de Mooj, Hofstede, 2010);

### 3.2.3 Moderating Variable

A moderator term is also included in the analysis, the degree of internationalization of emerging market firms. As of today, three composite indicators are usually used in research in order to measure this variable: the “transnationality index”(TNI) provided by UNCTAD, the "transnational activity spread index" proposed by Letto-Gillies (1998) and the “degree of internationalization index” introduced by Sullivan (1994). Indeed, Sullivan’s index provides the most holistic representation of the variable, including five different composite indicators (foreign sales to total sales, foreign assets to total assets, top managers’ international experience, psychic dispersion of international operations and overseas subsidiaries to total subsidiaries) but since the focus of this thesis are emerging countries, it’s difficult to find available data for all of them. In particular, it wasn’t possible to find data regarding the top managers international experience and on the psychic dispersion of the operations. Therefore, it was decided to use the TNI index by UNCTAD as a proxy for the degree of internationalization of emerging markets firms. The index is calculated as the average of three indicators: foreign sales to total sales, foreign employment to total employment and foreign assets to total assets (Dörrenbächer, 2000). Therefore, its formula is:

$$TNI = (FSTS + FETE + FATA) / 3$$

where FSTS is foreign sales to total sales, FETE is foreign employment to total employment and FATA is foreign assets to total assets. Unfortunately many emerging firms showed available data only for sales and assets but not for

employment, therefore it was decided to only use two indicators to calculate the DOI (degree of internationalization) index, resulting in a limitation of this research.

The data for this index was available in the Eikon database. The moderator is interacted with each of the independent variables.

### 3.2.4 Control Variables

A firm's CSR engagement can be due to many different factors, so it was decided to include the following control variables in order to make sure that the measured effect isn't influenced by external factors. In order to do so, these variables must be held constant during the analysis. When control variables aren't held constant they turn into confounding variables, risking to influence the result and ruining the analysis.

Following previous research, firm size, sales growth and industry were selected as controls. Roberts (1992) stated that company size, and type of industry as control variables proved to have a strong influence on CSR in previous studies. Moreover, studies taking into consideration firm size (Moore, 2001; Udayasankar, 2007; Blombäck & Wigren, 2008) and type of industry (Banerjee et al., 2003; Rahman & Widiasari, 2008; Sweeney & Coughlan, 2008) all recognized their strong influence on CSR participation.

Firm size is measured by total assets. This control variable could have a huge effect on corporate social responsibility engagement since smaller firms, having lower visibility, show difficulties to access key resources and, moreover, they are usually operating on smaller scale, making them less likely to take part in CSR initiatives (Udayasankar, 2007). Furthermore, especially in emerging markets, the unstable business environment often leads small firms to only focus on survival and neglecting CSR practices. Total assets were expressed in thousands of \$.

The second control variable included in the model, sales growth (between year 2017 and 2018), is expected to positively affect CSR engagement. The variable was computed by subtracting the net sales of 2017 from those of 2018 and by dividing

the result by the net sales of 2017. It would have probably been much more useful to test the effect of this specific variable on the variation in the ESG score between the year 2017 and 2018, but unfortunately the ESG data was only retrieved for the year 2018 alone. Nevertheless, it is still interesting to see if a recent increase in sales, which are usually a good predictor of a firm's short term performance, has any effect on the current consideration a company has regarding environmental and social causes. Many authors already found evidence of the relationship between CSR and CFP (corporate financial performance) by assessing the impact of CSR on companies' sales growth (Laplume et al., 2009; Cui et al., 2015). Their results indicate a negative relationship when sales growth is treated as the dependent variable and CSR engagement represents the predictor. In this case, where the direction of causation of this dependence relationship is inverted and sales growth plays the role of the predictor, the effect is expected to be positive. The rationale behind this is that firms enjoying a better performance condition feel more free to also commit some of their resources to CSR practices like employee relations or the environment (Waddock and Graves, 1997), while firms facing struggles feel more financial pressure and have therefore less incentives to focus on social matters. Thus, firms with large portions of slack resources arising from financial performance may have greater opportunities to invest and focus on CSR (Waddock and Graves, 1997).

As already stated, also the type of industry is expected to have a strong correlation with the level of CSR engagement, since in some industries public concern related to CSR is felt much more than in others (Banerjee et al., 2003). Furthermore, as highlighted by Butin-Dufresne & Sacaris (2004), firms belonging to a certain type of industry may engage in more socially responsible behaviours simply due to the character of the activities involved. Therefore, industry dummies were included for the ten following sectors: Basic Materials, Consumer Cyclical, Consumer Non-Cyclical, Energy, Financials, Healthcare, Industrials, Technology, Telecommunication Services and Utilities.

### 3.3 Analytical Technique

In order to predict the relationship between my independent variables, namely cultural differences in emerging countries, to my dependent variable, corporate social responsibility engagement, a multiple regression analysis will be performed using the software SPSS (Statistical Product and Service Solutions). One key aspect of this type of analysis is that only metric variables can be included in the regression. The overall form of a multiple regression analysis is explained as follows (Hair et al., 2014):

$$Y = b_0 + b_1X_1 + b_2X_2 + \dots + b_kX_k + e$$

where Y is the dependent variable and the  $b_0$  represents the intercept. Moreover, the X's represent the various explanatory variables and b stands for their slope coefficient, while e is the error term.

In this research the equation is going to be:

$$\text{CSRENGAGEMENT} = b_0 + b_1\text{INDIV} + b_2\text{MAS} + b_3\text{LTORIENT} + b_4\text{DOI} + b_5\text{INDIV} * \text{DOI} + b_6\text{MAS} * \text{DOI} + b_7\text{LTORIENT} * \text{DOI} + e$$

where INDIV is Individualism, MAS is masculinity, LTORIENT is Long-term orientation and DOI is the degree of internationalization.

In order to run a multiple regression there are first some assumptions that must be checked and tested. These assumptions are (Hair et al., 2014):

1) Linearity of the phenomenon measured: The linearity of the relationship between dependent and independent variables represents the degree to which the change in the dependent variable is associated with the independent variable. This assumption can be tested with scatterplots.

2) Constant variance of the residuals (Homoscedasticity): There should be no clear pattern in the distribution, if this is present, the data is heteroscedastic and this can be fixed by a non-linear data transformation or by adding a quadratic term

3) Independence of the residuals: there must be no multicollinearity in the data, since this may lead to difficulties in disentangling which of them best explains any shared variance with the outcome. Multicollinearity happens when the independent variables are too highly correlated with each other.

4) Normality of the residuals' distribution: the errors between observed and predicted values (the residuals of the regression) should be normally distributed. This assumption may be checked by looking at a histogram or a Q-Q-Plot.

### 3.4 Research Ethics

As stated in the previous sections, the data used for this Master thesis has been retrieved from the Eikon database and from the site [geerthofstede.com](http://geerthofstede.com) where data on cultural dimensions can be downloaded for free. The researcher didn't collect data by himself and based his study on already existing databases, so he didn't influence the approach used to collect the data. Moreover, Radboud University provides access to Eikon terminals for student use, therefore the data used will cause no damage to the parties engaged in terms of privacy. The used data has not been manipulated by the researcher and all the sources have been adequately referenced.

## 4. Results

The results chapter is organized as following. In the first section an overview of the descriptive statistics will be displayed; the second section includes an assessment of the regression assumptions while the hypotheses will be tested in section 4.3 through multiple regression analysis. Finally, the last section is dedicated to an assessment of the robustness of the results.

### 4.1 Descriptive Statistics

The data sample initially consisted of 1594 firms from emerging countries, both domestic and multinational, for which the ESG combined score by Refinitiv was accessible. Unfortunately, in many cases firms from emerging countries show limited data availability, and for some variables which are of key importance for this research the database was showing missing values. After consultation it was decided to only include firms showing available data for all the variables included in this research. In order to deal with missing values it was decided to adopt the listwise deletion approach as recommended by Williams (2015). This kind of method constitutes one of the best methods to handle missing data, even if one of its major downsides is the risk of heavily reducing the sample size, since it implies the exclusion of the whole observation from the analysis if any single value across the variables is missing. On the other hand, using an imputation method could result in a biased database, making listwise deletion a preferable approach (Hair, Black, Babin, & Anderson, 2014).

The sample was therefore reduced from the initial number of 1594 to 1006 observations, of which 544 are domestic firms (54%) and 462 are multinationals (46%). Regarding the economic sector, the category with the largest number of firms is that of Financials (298 firms, table 4.1). The rule of thumb for the sample size when conducting a multiple regression analysis says that it's better to use at least five observations per independent variable (Hair et al., 2014). In order to improve the power and robustness of the results it's even better to have at least 15 to 20 observations per predictor, and this condition is met since this thesis includes 3 predictor variables and the sample has more than 1000 observations.

<b>Economic sector</b>	<b>Frequency</b>	<b>Percent</b>
<b>Basic Materials</b>	<b>93</b>	<b>9.2</b>
<b>Consumer Cyclicals</b>	<b>107</b>	<b>10.6</b>
<b>Consumer Non-Cyclicals</b>	<b>95</b>	<b>9.4</b>
<b>Energy</b>	<b>45</b>	<b>4.5</b>
<b>Financials</b>	<b>298</b>	<b>29.6</b>
<b>Healthcare</b>	<b>39</b>	<b>3.9</b>
<b>Industrials</b>	<b>125</b>	<b>12.4</b>
<b>Technology</b>	<b>81</b>	<b>8.1</b>
<b>Telecommunication Services</b>	<b>47</b>	<b>4.7</b>
<b>Utilities</b>	<b>76</b>	<b>7.5</b>
<b>Total</b>	<b>1006</b>	<b>100.0</b>

table 4.1

Concerning the different countries included, the country with the highest number of firms is China (165 firms), followed by Taiwan (113) as it can be observed in table 4.2 in the following page, where the average ESG scores per country are displayed as well. The country with the highest average ESG score is Thailand, followed by Hungary and Malaysia, while the lowest scores and therefore the countries whose companies seem to focus less on sustainability are Qatar (18.70), Peru (23.41) and Egypt (23.66). It's important to note that these arguments may be biased by the different number of firms observed per country, where for example in the case of Hungary the average score was computed only for the five firms included in the sample.

<b>Country</b>	<b>Frequency</b>	<b>Percent</b>	<b>Avg ESG score</b>
<b>United Arab Emirates</b>	<b>17</b>	<b>1.7</b>	<b>30.44</b>
<b>Argentina</b>	<b>35</b>	<b>3.5</b>	<b>37.14</b>
<b>Brazil</b>	<b>57</b>	<b>5.7</b>	<b>42.67</b>
<b>Chile</b>	<b>28</b>	<b>2.8</b>	<b>43.13</b>
<b>China</b>	<b>164</b>	<b>16.3</b>	<b>34.73</b>
<b>Colombia</b>	<b>11</b>	<b>1.1</b>	<b>49.13</b>
<b>Czech Republic</b>	<b>5</b>	<b>.5</b>	<b>45.10</b>
<b>Egypt</b>	<b>8</b>	<b>.8</b>	<b>23.66</b>
<b>Greece</b>	<b>14</b>	<b>1.4</b>	<b>46.14</b>
<b>Hungary</b>	<b>5</b>	<b>.5</b>	<b>53.64</b>
<b>Indonesia</b>	<b>29</b>	<b>2.9</b>	<b>44.02</b>
<b>India</b>	<b>89</b>	<b>8.8</b>	<b>48.83</b>
<b>Korea</b>	<b>57</b>	<b>5.7</b>	<b>42.44</b>
<b>Mexico</b>	<b>25</b>	<b>2.5</b>	<b>46.72</b>
<b>Malaysia</b>	<b>55</b>	<b>5.4</b>	<b>53.27</b>
<b>Peru</b>	<b>14</b>	<b>1.4</b>	<b>23.41</b>
<b>Philippines</b>	<b>21</b>	<b>2.1</b>	<b>45.98</b>
<b>Pakistan</b>	<b>5</b>	<b>.5</b>	<b>29.64</b>
<b>Poland</b>	<b>24</b>	<b>2.4</b>	<b>44.22</b>
<b>Qatar</b>	<b>13</b>	<b>1.3</b>	<b>18.70</b>
<b>Russia</b>	<b>24</b>	<b>2.4</b>	<b>42.33</b>
<b>Saudi Arabia</b>	<b>27</b>	<b>2.7</b>	<b>24.98</b>
<b>Thailand</b>	<b>34</b>	<b>3.4</b>	<b>57.27</b>
<b>Turkey</b>	<b>45</b>	<b>4.5</b>	<b>47.87</b>
<b>Taiwan</b>	<b>113</b>	<b>11.2</b>	<b>49.69</b>
<b>South Africa</b>	<b>87</b>	<b>8.6</b>	<b>46.60</b>
<b>Total</b>	<b>1006</b>	<b>100.0</b>	<b>-</b>

table 4.2

Table 4.3 shows the descriptive statistics for the dependent and independent metric variables. As shown in the table, tests for skewness and kurtosis were performed (also useful to check for Normality). George and Mallery (2010) argue that Skewness values falling between -2 and +2 and Kurtosis values falling between -3 and +3 can be considered acceptable when checking for the normality of a distribution. All variables satisfy the condition except for the two control variables Size and Sales Growth. Therefore, in order to reduce bias, a log transformation was performed for these two variables: the descriptive statistics resulting from the transformation are already included in the following table (4.3). Moreover, since some firms had a negative value for sales growth (their net sales had decreased between 2017 and 2018), a simple log transformation would have resulted in many missing values since the natural logarithm of a negative number is undefined. Thus, a constant value was added to the data prior to applying the log transformation (+1.5) in order to make all the values positive. The transformation for the control Sales Growth was therefore  $\log(\text{Sales Growth} + 1.5)$ .

After the transformation LogSize has acceptable values for skewness and kurtosis while Log Sales Growth (LogSG) remains biased (Kurtosis = 13.024) and will therefore be excluded from the analysis.

	ESG 2018	Indiv	Masc	LTO	DOI	Size	SalesGrowth	LogSize	LogSG
<b>N</b>	1006	1006	1006	1006	1006	1006	1006	1006	1006
<b>Mean</b>	43.06	31.61	53.16	57.36	0.1295	30844118.68	0.1448917	6.8370	0.2113
<b>Median</b>	43.69	25.00	56.00	50.00	0.00	5983107.00	0.1195498	6.7769	0.2094
<b>Mode</b>	42.09	20	45	87	0.00	15652	0.14258	4.19	.2155
<b>Std. dev</b>	20.58	15.886	11.005	26.578	.2054	94367487.85	.25546435	.7273	.0654
<b>Skewness</b>	-.017	.949	-.202	.274	1.567	7.618	2.149	.234	-.636
<b>Kurtosis</b>	-0.837	-0.208	-0.533	-1.401	1.441	70.893	15.651	.119	13.024
<b>Min</b>	0.04	13	28	7	0.00	15652	-1.04458	4.19	-.3416
<b>Max</b>	89.22	80	88	100	.9459	1121622794	2.54103	9.05	.6065

table 4.3

## 4.2 Assumptions Testing

As already anticipated in chapter 3, in order to run a multiple linear regression there are some assumptions that must be checked first. These assumptions are the linearity of the phenomenon measured, the constant variance of the residuals (Homoscedasticity), the independence of the residuals, the normality of the residuals' distribution and the absence of multicollinearity.

### 4.2.1 Linearity

Starting from the first assumption, the linearity of the phenomenon implies that there must be a linear relationship between the outcome variable and the independent variables: this can be checked by plotting the standardized residuals against the standardized predicted value in a scatterplot while running the multiple regression analysis. As it can be seen from the plot (Appendix 1) there are both positive and negative residuals randomly distributed above and under 0. The points are scattered around the horizontal line in the plot, with a roughly constant variance, suggesting linearity. Moreover, linearity can also be checked by looking at the normal P-P plot of regression standardized residual (Appendix 2), where the dots are following the oblique line, implying that there is no reason to doubt the linearity assumption.

### 4.2.2 Homoscedasticity

Moving to the next assumption, homoscedasticity, this can be also checked by looking at the scatter plot (Appendix 1). There is no clear specific pattern identifiable in the residuals distribution which denotes that residuals are both unbiased and homoschedastic.

### 4.2.3 Independence of residuals

The independence of the residuals can be checked with a Durbin-Watson test (in the model summary table in the Appendix 3). This test gives a value between 0 and 4 with 2 indicating that the residuals are uncorrelated. The rule of thumb is that values in the range of 1.5 to 2.5 are relatively normal and signal independence of the

residuals, while values outside of this range may cause some problems (Field, 2009). Since the value of the test is 2.015, we can assume that residuals are independent.

#### 4.2.4 Normality

In order to check for the normality of the residuals' distribution, a Shapiro-Wilk's test and an inspection of the histogram and the normal Q-Q plot in Appendix 4 were conducted. Unfortunately, the Shapiro-Wilk's test shows a significance value of .000, below 0.05, rejecting the null hypothesis that the data is normally distributed (Hair et al., 2014). However, the histogram has a peak in the middle and is fairly symmetrical, plus the normal Q-Q plot shows that most of the points are distributed on the line, suggesting that the data is, at least approximately, normally distributed.

#### 4.2.5 Multicollinearity

Besides checking for the four standard assumptions, it was also decided to check for multicollinearity. The absence of multicollinearity can be checked in two ways: by looking at the correlation coefficients in a correlation matrix (provided in appendix 5) or with the variance inflation factor (VIF) values which can be found in Appendix 7 (Hair et al., 2014). If the coefficients are highly correlated ( $>.80$ ) multicollinearity is present. In order to meet the assumption of multicollinearity absence, the VIF value should be  $<10$ . In principle the interaction terms showed very high correlations between them, since they were all multiplied by the same moderating variable "Degree of Internationalization", therefore causing multicollinearity problems.

So, in order to solve the issue, mean-centered variables were created by subtracting the mean from each of the independent variables involved in the interaction. Then, those residuals were multiplied together to create centered product terms, which will be used as the new interaction terms (LTO x DOI, Indiv x DOI, Masc x DOI).

After applying this small adjustment to the variables, all the VIF values are well below 10 (see the VIF coefficients table in Appendix 7) and there are no correlation coefficients higher than .80: there is no multicollinearity, therefore the multiple regression analysis can be performed.

### 4.3 Multiple Regression Analysis

The multiple regression analysis of this master thesis is performed sequentially (also called hierarchical regression). In other words, the predictor variables are introduced step by step in 5 different models. By convention, only the control variables (industry dummies and log firm size) were included in the first model, followed by Model 2 where the three independent variables (Individualism, Masculinity and Long-term Orientation) were added. Subsequently, each interaction term was entered in sequence in the following three models, LTO x DOI, MASC x DOI and INDIV x DOI respectively. As already stated, missing values were dealt with by excluding cases listwise.

By looking at the ANOVA table provided by SPSS (Appendix 6) it can be seen that all the five models are statistically significant ( $p = 0.000$ ). Furthermore, by looking at the Model summary in appendix 3, it can be seen that moving from the first model to the last and by increasing the number of variables included, the coefficient of determination (R square) increases. This coefficient is one of the most common measures used to assess the accuracy of prediction of a specific model (Hair et al., 2014). However, the addition of a new variable will always increase the R square, also in the case that non-significant predictors are added. It is therefore important to also look at the Adjusted R square value. This measure is capable of taking into consideration the number of predictors added and constitutes therefore a more reliable measure of the overall model predictive accuracy (Hair et al., 2014).

Model 1 has an Adjusted R square of 0.099, meaning that the predictors included (type of industry and size) explain the 9.9% of the variance in the dependent variable. Adding the three main predictor variables causes the adjusted R square to increase up to 0.167, meaning that the predictive capacity of model 2 becomes 16.7%. Model 3, with the addition of the moderator Degree of Internationalization and the first interaction term LTO x DOI, shows an adjusted R square of 0.187, but this value stays more or less the same for Model 4 (Adjusted R square = 0.186) and Model 5 (Adjusted R square = 0.188).

	MODEL 1			MODEL 2			MODEL 3			MODEL 4			MODEL 5		
ESTIMATES	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
ENERGY	5.109	3.129	.103	5.324	3.013	.078	3.864	2.990	.197	3.802	2.992	.204	3.820	2.990	.202
CONSUMER CYCLICALS	2.418	2.347	.303	4.646*	2.321	.046	1.732	2.363	.464	1.674	2.365	.479	1.687	2.363	.475
TELECOM SERVICES	7.767*	3.089	.012	7.478*	2.976	.012	6.717*	2.945	.023	6.619*	2.949	.025	6.510*	2.947	.027
INDUSTRIALS	2.907	2.189	.185	5.306*	2.147	.014	2.872	2.175	.187	2.891	2.176	.184	2.908	2.174	.181
UTILITIES	2.151	2.549	.399	1.748	2.457	.477	1.269	2.429	.602	1.282	2.430	.598	1.201	2.429	.621
CONSUMER NON CYCL.	3.768	2.446	.124	4.838*	2.369	.041	2.321	2.402	.334	2.385	2.404	.321	2.261	2.403	.347
BASIC MATERIALS	4.122	2.408	.087	4.592*	2.328	.049	1.173	2.408	.626	1.124	2.410	.641	1.316	2.411	.585
TECHNOLOGY	7.014**	2.530	.006	12.054***	2.683	.000	6.817*	2.869	.018	6.862*	2.870	.017	6.921*	2.868	.016
HEALTHCARE	5.709	3.486	.102	8.359*	3.399	.014	4.204	3.461	.225	3.948	3.480	.257	4.064	3.478	.243
LOGSIZE	9.726***	.970	.000	12.315***	1.000	.000	11.427***	1.010	.000	11.423***	1.010	.000	11.403***	1.010	.000
INDIV				.289***	.047	.000	.263***	.047	.000	.258***	.047	.000	.252***	.047	.000
MASC				-.386***	.059	.000	-.336***	.059	.000	-.333***	.060	.000	-.317***	.060	.000
LTO				-.056*	.028	.049	-.054	.028	.057	-.052	.028	.063	-.053	.028	.061
DOI							16.496***	3.202	.000	16.941***	3.262	.000	17.691***	3.293	.000
LTDOI							.034	.112	.763	.049	.114	.670	-.056	.131	.670
MASCDOI										.194	.271	.474	.486	.325	.136
INDDOI													-.392	.243	.107
ADJUSTED R-SQUARED		.099			.167			.187			.186			.188	
SIG. F CHANGE		.000			.000			.000			.474			.107	

Reference category for dummies: Financials       $p < 0.05 \rightarrow *$ ;  $p < 0.01 \rightarrow **$ ;  $p < 0.001 \rightarrow ***$

By looking at the Sig. F change statistic in the regression coefficients table (or in the model summary in Appendix 3), it can be seen that the change is significant only up to model 3, while the change from 3 to 4 ( $p = 0.474$ ) and from 4 to 5 ( $p = 0.107$ ) are not significant. A significant F change basically means that the variable added in that specific step improved the prediction of the model in a significant way (Hair et al., 2014). In other words, the addition of the two interaction terms MASC x DOI and IND x DOI doesn't significantly improve the analysis. Furthermore, all of the interaction terms included in models 3, 4 and 5 produce non significant results. In order to individually test the hypotheses, the best solution is to assess the model in which the specific variable involved in the hypothesis appears for the first time. Thus, model 2 will be used to assess the hypotheses regarding the three Hofstede dimensions, while the last three models will be used to assess those regarding the interaction terms.

Starting from model 1, where only the industry dummies and log size are included, it can be seen that only the dummies Telecommunication Services (Beta = 7.767;  $p = .012$ ) and Technology (Beta = 7.014;  $p = .006$ ) produce significant unstandardized Beta coefficients. As already stated, the industry used as reference category for comparison with the dummies is "Financials, so the coefficients must be interpreted in relation to this category. Thus, firms from both Technology and Telecommunication Services industries, compared to the Financials industry, will tend to show higher ESG scores. The other control variable, LogSize, (Beta = 9.726;  $p < 0.001$ ) shows a positive and significant coefficient, meaning that the size of the firm positively affects a firm's CSR engagement.

In model 2 the three main predictor variables are added and this model will therefore be used to test the first three hypotheses. Regarding the Industry dummies, in this model Consumer Cyclical, Telecommunication services, Industrials, Consumer Non Cyclical, Basic Materials, Technology and Healthcare all have significant positive betas, meaning that compared to the Financials Industry, firms belonging to these industries tend to show better ESG scores. Technology (Beta = 12.054,  $p < 0.001$ ) is the Industry dummy showing the highest Beta compared to Financials. The three independent variables Individualism (Beta = 0.289;  $p < 0.001$ ), Masculinity

(Beta = -0.386;  $p < 0.001$ ) and Long-term Orientation (Beta = -0.056;  $p = 0.049$ ) all show significant unstandardized Beta coefficients. However, contrary to what was hypothesized, Individualism has a positive effect on CSR Engagement, therefore Hypothesis 1 is rejected. As expected, Masculinity has a negative impact on CSR engagement, and H2 is thus accepted. Surprisingly, also the effect of a Long-term oriented culture on the dependent variable of the study is negative, leading to the rejection of H3.

Regarding the interaction terms added respectively in models 3, 4 and 5, none of their effects are statistically significant and therefore hypotheses H4a, H4b and H4c are all insignificant and therefore rejected. It's also worth noting that in model 3, 4 and 5 the moderator DOI (Degree of Internationalization) is also included separately and shows a positive significant coefficient, suggesting that the more a firm relies on international operations for conducting its business, the more it will tend to be engaged in CSR practices.

Table 4.5 shows an overview of the hypotheses testing and the main coefficients of the multiple regression analysis.

Hypotheses	Beta	Sig. (p value)	Accepted/Rejected
H1	0.289	0.000	Rejected
H2	-0.386	0.000	Accepted
H3	-0.056	0.049	Rejected
H4a	0.034	0.763	Rejected
H4b	0.194	0.474	Rejected
H4c	-0.392	0.107	Rejected

Table 4.5

#### 4.4 Robustness Checks

In order to assess the robustness of the multiple linear regression analysis, it was decided to run the analysis again excluding Chinese and Taiwanese firms which were over-represented in the sample (which included 164 Chinese firms, 16.3% of the sample, and 113 Taiwanese firms, 11.2% of the sample).

Robustness checks are useful in testing the quality and precision of an analysis in the face of different assumptions, addressing potential biases which could arise from measurement issues or sample composition (Lu & White, 2014). The said firms are removed from the sample before running the multiple regression again, in order to see if the outcomes and coefficients are very different or can be considered “robust”. After the exclusion, the sample size drops to 729 firms.

By looking at the Model Summary of the Robustness test in Appendix 8, it can be seen that, compared to the main analysis, the Adjusted R square is higher only for the first model ( Adj R square = 0.131) and lower for the others. Focusing on the regression coefficients, the three independent variables’ coefficients are still significant in model 2 and keep the same sign as in the original analysis, adding to the validity of the results. Furthermore, when checking for the interaction effects in models 3,4 and 5, the outcomes are still very similar, and none of the interaction terms’ coefficients are significant.

Therefore, when testing the hypotheses the results remain the same, i.e. only H2 is accepted. When signs, magnitude and significance of the coefficients are similar when conducting a robustness check, this is usually taken as evidence of the validity and reliability of the analysis (Lu & White, 2014).

## 5. Discussion

Starting from the control variables, as already highlighted in the previous section, firm size has a strong positive effect on CSR engagement. Adopting a legitimacy-based view, it can be argued that since larger firms usually enjoy greater visibility, the need to be seen as legitimate and socially responsible is greater for them (Hooghiemestra, 2000). Moreover, in most cases bigger firms possess better and more organized internal systems that allow them to be better equipped to engage in such activities, which require a certain degree of planning and organization (Donaldson, 2001). Concerning the industry types, and focusing the attention on the only two dummies producing statistically significant coefficients (Technology and Telecommunication Services industries), it looks from the results that emerging countries' firms belonging to these two industries engage in CSR practices much more than those in the Financial sector. By looking at the regression table displayed in the results section it looks like the reference category for the industry dummies (Financials) is the one characterized by firms that tend to attach the lowest importance to the socially responsible side of their businesses, since all the industry dummies coefficients are positive (even though they're not significant). Besides being the only two statistically significant dummies, Technology and Telecommunication Services show the highest regression coefficients as well (respectively Beta = 7.014 and Beta = 7.767). These coefficients remain significant throughout all the five models, adding to the robustness of this specific result. This finding is particularly interesting, because even if usually regarded as a non-environmentally sensitive industry (Kavaliauske & Stancikas, 2014), it looks like, in emerging countries, the Telecommunication Services industry is one of the most socially responsible. However, this result highlights that CSR, as argued before, concerns much more than environmentally responsible actions (Carroll, 1991).

The results regarding the three cultural dimensions analyzed were surprising. As already stated, the effect of cultural differences on CSR engagement has already been studied in the past by different authors (Ringov & Zollo, 2007; Ho et al., 2011, Ioannou & Serafeim, 2012) and it's very interesting to compare their findings to the emerging country context in order to try and identify which factors may cause

differences in outcomes. Many of these discrepancies may be caused by the presence of institutional voids in emerging countries, meaning the lacunae arising from the absence of specific market intermediaries present in developed countries (Khanna, Palepu, 2010). When conducting research with an emerging country focus, one must always acknowledge these factors, which often result in information asymmetries and limited availability of skills and financial options. These conditions influence how companies think and react to challenges and can therefore play a role in how cultural differences may impact a sustainable behaviour from the company.

Starting from the first hypothesis (H1), Individualism has an unexpected positive effect on Corporate Social Responsibility engagement by firms from emerging countries, while the opposite was hypothesized. This means that a country scoring high on the “individualism” Hofstede dimension such as Hungary (which scores 80 on this dimension) would tend to focus more on CSR practices compared to a country such as Colombia (score = 13). A possible explanation to this unexpected result could be that collectivistic societies tend to view philanthropic behaviours enacted by individual firms as a sort of “selfish” self-promotion, and this consequently lowers the incentive of a firm to engage in CSR activities (Ioannou & Serafeim, 2012). Furthermore, Jackson & Apostolakou (2010) argue that in countries characterized by a more collectivistic mindset CSR practices are likely to be already included in institutional structures, instead of being expressed by individual companies.

Concerning H2, “*A masculine culture will have a negative impact on CSR engagement by emerging economy firms*”, the hypothesis is supported (Beta = - 0.386,  $p < .001$ ). The negative effect of a masculine culture is in line with the findings of Ringov & Zollo (2007) which found similar results when conducting a study mainly focused on developed countries CSR activities. As already argued in Chapter 2, masculinity is the opposite of femininity, and different authors already highlighted how the feminine societies tend to consider values such as cooperation, modesty and caring as central and key for progress (Hofstede, 1980,1983). On the other hand, masculine societies appreciate much more values like success and achievement rather than cooperation, ethical behavior and kindness. Even when

considering the performance aspect of CSR, feminine cultures tend to show higher scores. In a study associating CSR performance to Hofstede's masculinity/femininity dimension, it was found that feminine cultures generally support stronger CSR performance much more than masculine cultures do (Strand, 2010). This result is therefore pretty straightforward and in line with the prior literature and expectations. A perfect example of this effect can be appreciated by comparing firms from Thailand, which score pretty low on masculinity (34) to companies from Saudi Arabia, which has a score nearly twice as high (60). By simply looking at table 4.2, it can be seen that on average Thailand firms, much closer to a feminine society than Saudi Arabia, show higher ESG scores (57.27 against 24.98). Of course this is not only attributable to the differences in masculinity scores, but this factor surely plays a role, as the results show.

Even if the magnitude of the effect is very modest (Beta = -0.091), it's still very surprising to see the negative effect of Long-Term orientation on Corporate Social Responsibility engagement in emerging countries.

This is one of the most surprising findings of this thesis, in fact the opposite was hypothesized (H3). Evidence has been found that companies consistently engaging in CSR activities will benefit in the long term, due to a reduction in corporate expenses (Purnamasari et al., 2015). Furthermore, concerning emerging countries' companies in particular, CSR is usually used as a signaling strategy to respond to institutional voids, reduce risk, increase trust and to enhance access to key capital and resources, constituting a crucial aspect for long term success (Doh et al., 2017; El Ghoul et al., 2016).

How can this negative relationship between long-term oriented cultures and CSR be explained? While most authors see socially responsible behaviour as an indicator of "long-term performance and viability" (Kang, 2013), Friedman (1970) suggested that even though CSR has economic benefits, it also implies large long-term costs and the risk of dangerous agency problems between managers and shareholders (Barnea & Rubin, 2010). One possible explanation could arise from the fact that while firms in developed countries are generally endowed with better capabilities and institutions, companies belonging to long-term oriented emerging countries are aware of their conditions and their limited assets and resources. Thus, being

conscious of this important aspect, these firms already know that they must focus on their economic needs before committing too many resources on corporate social responsibility activities in order to achieve long term success.

Regarding the moderating role of the degree of internationalization, unfortunately it wasn't possible to find support for any of the hypotheses, since none of the interaction terms' coefficients were statistically significant. Nevertheless, a statistically significant, positive effect of DOI on CSR engagement was found (Beta = 16.496;  $p < .001$ ).

An explanation to this result can be found in the need for multinationals (or firms that expand internationally in general) to respond to different pressures and expectations coming from different stakeholder bases (Attig et al., 2016). In fact, when deciding to internationalize, emerging countries companies face the risk of not meeting societal, environmental or regulatory expectations and requirements belonging to the diverse countries in which it is decided to conduct business. Furthermore, Kang (2013) supports the idea that multinationals in particular have an even higher incentive to increase their CSR engagement in order to realize important economies of scope.

## 6. Conclusions

This master thesis set out to expand knowledge and contribute to academic research about CSR, topic which is gaining more and more importance in the business literature. In doing so, it focuses on the linkages between specific cultural dimensions of emerging countries to the overall level of corporate social responsibility engagement achieved by local firms as well as multinational enterprises in these contexts. This thesis aimed at answering two main research questions, as highlighted in chapter 1. First of all, it provides insights on how cultural differences among emerging markets affect firms' Corporate Social responsibility engagement and, secondly, its purpose is to shed light on how the degree of internationalization of these firms moderates this relationship.

The results show that the three analyzed cultural dimensions (individualism, masculinity and long-term orientation) all have significant impacts on companies' CSR engagement, even though the sign of the effects are quite surprising since two of them are opposite from what had been hypothesized. In fact, while expected to have a negative impact, individualism seems to have a positive influence on the dependent variable, and long-term orientation shows a negative coefficient while the opposite was hypothesized. Masculinity, on the other hand, shows a negative impact on CSR engagement by firms in emerging countries, as it was expected. Unfortunately, it is not possible to derive significant conclusions regarding the moderating effect of the degree of internationalization, since all the coefficients of the interaction terms were found to be non significant.

This conclusion chapter includes theoretical as well as practical (managerial) insights based on the results of the multiple regression analysis performed, gives an overview of the main limitation of this master thesis and ideas for future research.

### 6.1 Implications and Recommendations

#### 6.1.1 Theoretical Implications

The most important finding of this thesis rests in the fact that cultural differences seem to significantly affect values and norms regarding the CSR engagement by

emerging countries' firms, generally considered as a firm's obligation to protect and improve social welfare ensuring benefits for the society as a whole (Staples, 2004). Indeed, the findings highlight that, depending on the culture of a specific country, firms display different levels of social commitment. This master thesis has implications for the business research but it also provides relevant sociopsychological and behavioural insights. Differences in CSR engagement can be interpreted as differences in perceptions regarding organizational ethics and helping behavior, and the results of this thesis confirm that these dissimilarities also stem from a firm's and individual's cultural background.

Furthermore, this thesis contributes to expanding the limited literature regarding CSR in emerging countries, which generally show lower levels of CSR engagement and penetration compared to developed countries (Welford, 2004). Given the growing importance of CSR, it's important for research to focus on firms belonging to these emerging economies as well, in order to be able to spot differences and similarities between them and their more developed counterparts' perspectives.

### 6.1.2 Managerial Recommendations

Besides the theoretical implications provided by this thesis, important managerial insights are also given. Managers who are considering to launch cross-border CSR initiatives in emerging countries should also take into account informal institutions such as cultural factors. Firms are required to adjust the extent of their CSR commitment depending on the local environment, depending on the expectations of the diverse stakeholder bases (Voinea, Van Kranenburg, 2017). Indeed, this is particularly important for companies operating in a multiethnic environment and possessing a high level of internationalization, which was found to be strongly linked to CSR engagement. Therefore, managers and directors should particularly take into consideration those specific cultural dimensions and traits which are especially sensitive in host countries. This might influence not only the general level of CSR involvement but also the specific types of CSR activities chosen to be performed. Furthermore, the findings are useful for companies who wish to expand their activities in an emerging market, since CSR can also be seen as a non-market

signaling strategy useful to drive legitimacy and mitigate pressures in the host country (Doh et al., 2017).

## 6.2 Limitations and future research

Concerning the limitations of this master thesis, first of all it must be noted that the ESG scores used as a proxy for the dependent variable, CSR engagement, and all the variables regarding assets and sales were considered only for the year 2018. These values may change a lot overtime and the use of panel data, meaning data containing time series observations, could help in taking into account these fluctuations for future research. The use of this type of data has a number of advantages for the analysis, including a more accurate inference of the model parameters and enhanced efficiency in comprehending the complexity of human behavior (Cheng, 2005). Moreover, since these countries started adopting CSR relatively late, it would be interesting to assess the development of CSR engagement over time.

Furthermore, also due to difficulties in finding data for certain countries, it was possible to include in the sample only few firms of some emerging economies, resulting in the underrepresentation of some of them (for example Czech Republic, Pakistan and Uruguay with only 5 firms each).

Another limitation of this study concerns the use of Hofstede's cultural dimensions which have often been criticized. Some criticisms deal specifically with methodological issues, for example McSweeney (2002) and Smith (2002) argue that the sample used by Hofstede to create the dimensions (the IBM databank) may have produced results which can't be generalized to all possible contexts. Other criticisms also concern conceptual issues (Kagitcibasi & Berry, 1989) and application issues (McSweeney, 2002) concerning the dimensions. Therefore, future studies could use the GLOBE database or variables from the World Value Survey as an alternative to the Hofstede dimensions.

A final suggestion for further research could be to conduct the same analysis while being able to distinguish between self-imposed, voluntary CSR and mandatory CSR (Adhikari, 2014). By doing this, it would be possible to better understand whether

cultural differences influence the spontaneous choices of a firm or the kind of rules and pressures imposed on them by their respective countries.

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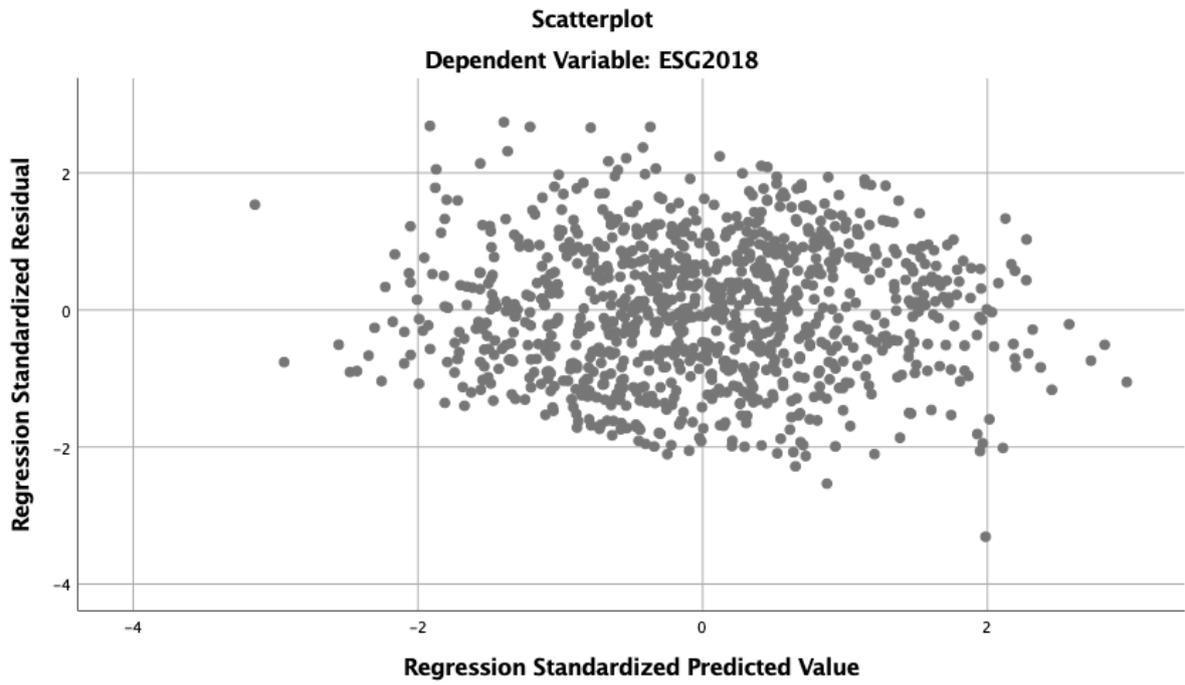
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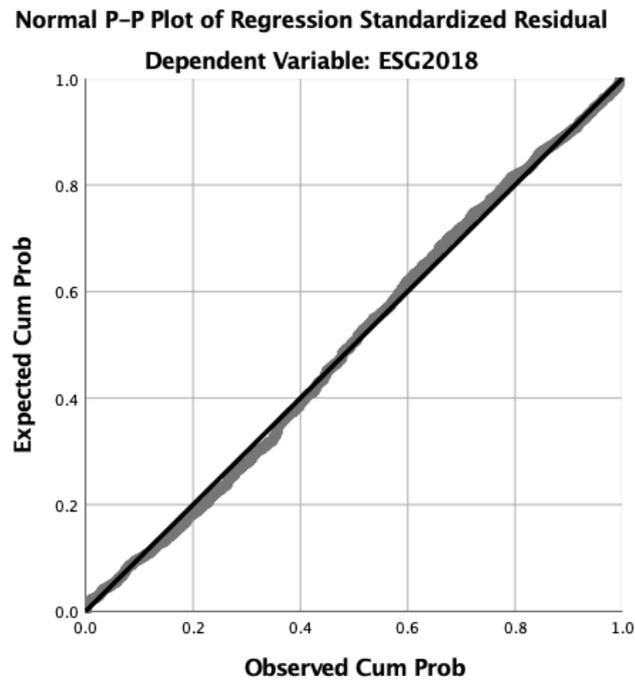
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## Appendix 1



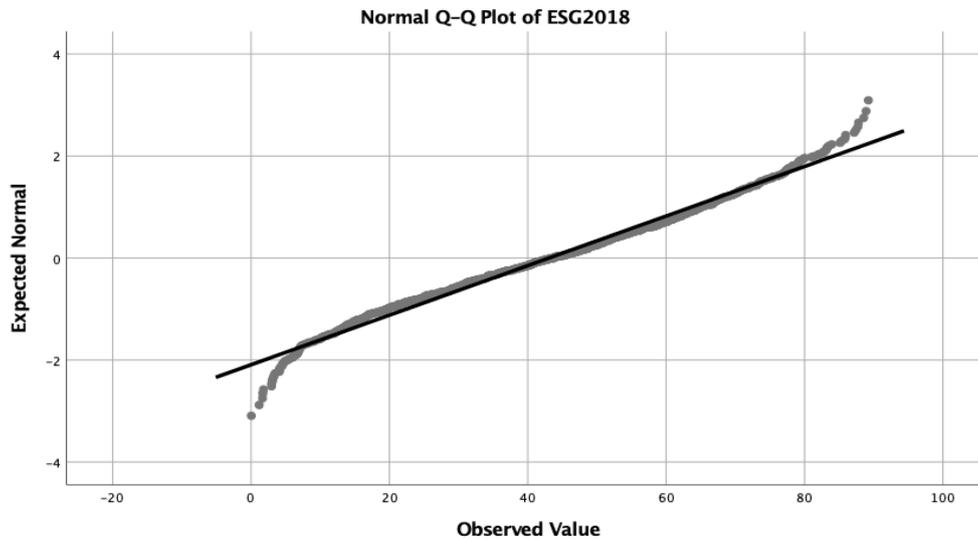
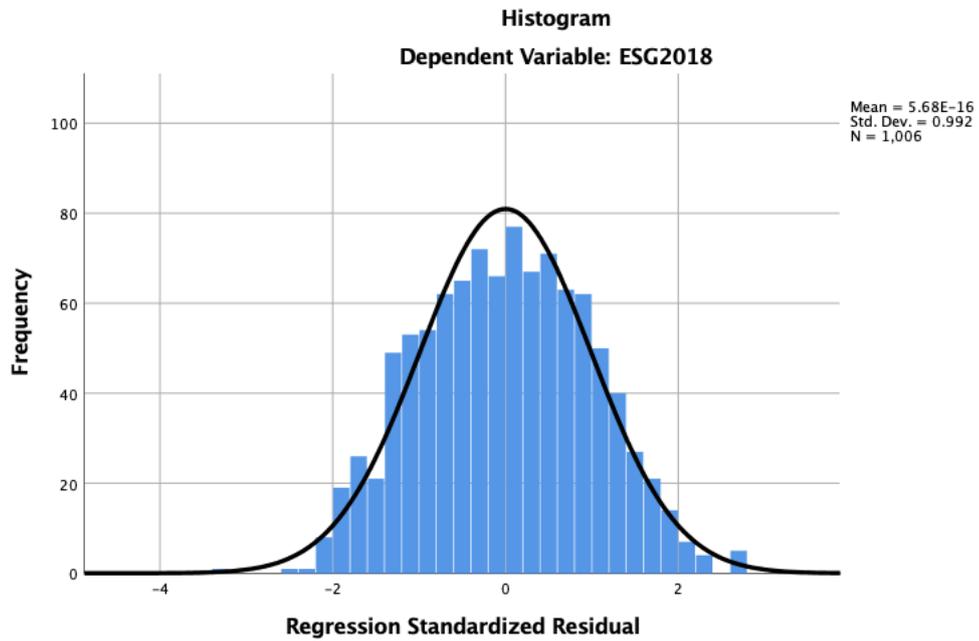
## Appendix 2



### Appendix 3 - Model Summary

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.328a	.108	.099	19.5335	.108	12.017	10	995	.000	
2	.421b	.177	.167	18.7844	.070	27.983	3	992	.000	
3	.446c	.199	.187	18.5552	.022	13.326	2	990	.000	
4	.446d	.199	.186	18.5598	.000	.514	1	989	.474	
5	.449e	.201	.188	18.5448	.002	2.600	1	988	.107	2.015
a Predictors: (Constant), LogSize, Healthcare, Technology, Energy, TelecomServices, Utilities, BasicMaterials, ConsumerNonCyclicals, ConsumerCyclicals, Industrials										
b Predictors: (Constant), LogSize, Healthcare, Technology, Energy, TelecomServices, Utilities, BasicMaterials, ConsumerNonCyclicals, ConsumerCyclicals, Industrials, Masc, Indiv, LTO										
c Predictors: (Constant), LogSize, Healthcare, Technology, Energy, TelecomServices, Utilities, BasicMaterials, ConsumerNonCyclicals, ConsumerCyclicals, Industrials, Masc, Indiv, LTO, LTODOI, DOI										
d Predictors: (Constant), LogSize, Healthcare, Technology, Energy, TelecomServices, Utilities, BasicMaterials, ConsumerNonCyclicals, ConsumerCyclicals, Industrials, Masc, Indiv, LTO, LTODOI, DOI, MASCDOI										
e Predictors: (Constant), LogSize, Healthcare, Technology, Energy, TelecomServices, Utilities, BasicMaterials, ConsumerNonCyclicals, ConsumerCyclicals, Industrials, Masc, Indiv, LTO, LTODOI, DOI, MASCDOI, INDDOI										
Dependent Variable: ESG2018										

## Appendix 4 - Normality tests



Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ESG2018	.037	1006	.002	.984	1006	.000
a. Lilliefors Significance Correction						

Appendix 5 - Correlations

	<b>ESG 2018</b>	<b>Indiv</b>	<b>Masc</b>	<b>LTO</b>	<b>DOI</b>	<b>LTO DOI</b>	<b>MASC DOI</b>	<b>IND DOI</b>
<b>ESG2018</b>	1.000	.087	-.111	-.028	.194	.000	.006	-.030
<b>Indiv</b>	.087	1.000	.351	-.504	-.014	-.092	.203	.123
<b>Masc</b>	-.111	.351	1.000	-.074	-.144	-.181	.056	.195
<b>LTO</b>	-.028	-.504	-.074	1.000	.099	.070	-.180	-.087
<b>DOI</b>	.194	-.014	-.144	.099	1.000	.060	-.203	-.020
<b>LTODOI</b>	.000	-.092	-.181	.070	.060	1.000	-.213	-.539
<b>MASCDOI</b>	.006	.203	.056	-.180	-.203	-.213	1.000	.560
<b>INDDOI</b>	-.030	.123	.195	-.087	-.020	-.539	.560	1.000

Appendix 6 - ANOVA table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45851.963	10	4585.196	12.017	.000 <sup>b</sup>
	Residual	379651.635	995	381.559		
	Total	425503.599	1005			
2	Regression	75473.835	13	5805.680	16.454	.000 <sup>c</sup>
	Residual	350029.763	992	352.853		
	Total	425503.599	1005			
3	Regression	84650.245	15	5643.350	16.391	.000 <sup>d</sup>
	Residual	340853.353	990	344.296		
	Total	425503.599	1005			
4	Regression	84827.226	16	5301.702	15.391	.000 <sup>e</sup>
	Residual	340676.372	989	344.465		
	Total	425503.599	1005			
5	Regression	85721.544	17	5042.444	14.662	.000 <sup>f</sup>
	Residual	339782.054	988	343.909		
	Total	425503.599	1005			

Appendix 7 – VIF values

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Healthcare</b>	1.194	1.228	1.304	1.318	1.319
<b>Consumer Cyclical</b>	1.380	1.460	1.550	1.552	1.552
<b>Telecommunication Services</b>	1.121	1.124	1.129	1.131	1.132
<b>Industrials</b>	1.375	1.430	1.504	1.505	1.505
<b>Energy</b>	1.103	1.106	1.116	1.117	1.117
<b>Utilities</b>	1.196	1.202	1.204	1.204	1.205
<b>Consumer Non Cyclical</b>	1.348	1.368	1.441	1.443	1.445
<b>Basic Materials</b>	1.282	1.296	1.422	1.423	1.427
<b>Technology</b>	1.250	1.520	1.780	1.781	1.781
<b>LogSize</b>	1.309	1.506	1.575	1.575	1.576
<b>Indiv</b>		1.575	1.595	1.627	1.636
<b>Masc</b>		1.191	1.246	1.253	1.288
<b>LTO</b>		1.628	1.629	1.633	1.634
<b>DOI</b>			1.263	1.310	1.337
<b>LTDOI</b>			1.135	1.174	1.554
<b>MASCDOI</b>				1.167	1.689
<b>INDDOI</b>					2.113

Appendix 8  
Regression Coefficients – Robustness Check

	MODEL 1			MODEL 2			MODEL 3			MODEL 4			MODEL 5		
ESTIMATES	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p	$\beta$	SE	p
ENERGY	4.446	3.506	.205	4.859	3.462	.161	3.719	3.453	.282	3.739	3.456	.280	3.760	3.457	.277
CONSUMER CYCLICALS	6.067*	2.733	.027	7.444**	2.749	.007	5.126	2.815	.069	5.162	2.820	.068	5.130	2.822	.069
TELECOM SERVICES	6.995*	3.289	.034	7.744*	3.246	.017	6.822*	3.229	.035	6.860*	3.235	.034	6.790*	3.237	.036
INDUSTRIALS	2.755	2.638	.297	3.297	2.611	.207	1.268	2.652	.633	1.268	2.654	.633	1.266	2.655	.634
UTILITIES	4.955	2.748	.072	5.102	2.726	.062	4.609	2.709	.089	4.611	2.711	.089	4.559	2.713	.093
CONSUMER NON CYCL.	5.770*	2.645	.029	6.971**	2.635	.008	4.474	2.719	.100	4.459	2.721	.102	4.330	2.729	.113
BASIC MATERIALS	5.351*	2.648	.044	5.734*	2.620	.029	2.539	2.760	.358	2.570	2.764	.353	2.627	2.767	.343
TECHNOLOGY	6.730	4.644	.148	10.612*	4.761	.026	7.902	4.944	.110	7.892	4.948	.111	7.936	4.950	.109
HEALTHCARE	6.077	3.903	.120	7.644	3.900	.050	3.994	4.033	.322	4.115	4.062	.311	4.092	4.063	.314
LOGSIZE	11.910***	1.149	.000	13.256***	1.186	.000	12.228**	1.213	.000	12.228***	1.214	.000	12.200***	1.215	.000
							*								
INDIV				.248***	.056	.000	.229***	.056	.000	.230***	.056	.000	.228***	.056	.000
MASC				-.188*	.089	.034	-.177*	.088	.045	-.174	.089	.050	-.172	.089	.054
LTO				-.091*	.040	.022	-.082*	.039	.037	-.082*	.039	.039	-.083*	.039	.037
DOI							9.946*	4.605	.031	9.583*	4.810	.047	10.956*	5.212	.036
LTDOI							-.253	.182	.166	-.267	.190	.161	-.273	.190	.152
MASCDOI										-.080	.306	.793	.102	.406	.802
INDDOI													-.191	.278	.493
ADJUSTED R-SQUARED		.131			.158			.172			.171			.170	

### Model Summary – Robustness Check

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.378 <sup>a</sup>	.143	.131	19.2991247	.143	11.964	10	718	.000	
2	.416 <sup>b</sup>	.173	.158	18.9941858	.030	8.746	3	715	.000	
3	.434 <sup>c</sup>	.189	.172	18.8405568	.016	6.854	2	713	.001	
4	.435 <sup>d</sup>	.189	.171	18.8528719	.000	.069	1	712	.793	
5	.435 <sup>e</sup>	.189	.170	18.8598827	.001	.471	1	711	.493	1.691