Corporate Social Responsibility, Culture and Earnings Management.

Master Thesis

Master Accounting & Control

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Abstract

This study examines whether corporate socially responsible (CSR) firms are either more or less likely to engage in earnings management. Specifically, it is questioned whether the cultural environment, which is defined as either masculine or feminine, has an influence on CSR and earnings management. On the one hand, a moderating effect between CSR and culture on earnings management is expected. This moderating effect suggests that CSR firms in feminine countries are less likely to engage in earnings management than CSR firms in masculine countries. On the other hand, a mediating effect is expected, in which firms in feminine countries are more likely to act corporate socially responsible and are hence less likely to engage in earnings management compared to firms in masculine countries. The findings show that firms in masculine countries are more likely to engage in real earnings management compared to firms in feminine countries. Such a significant influence cannot be verified for accrual-based earnings management, which might be explained by the facts that real earnings management has a lower likelihood of detection, is less risky and fits within the higher level of aggressiveness within masculine countries. The findings show neither a significant relation between CSR and total earnings management nor a mediating or a moderating effect between CSR, culture and earnings management. The results are robust to including CSR as a dummy variable based upon the CSR mean in a certain year instead of using the actual CSR score, to making a distinction between real and accrual-based earnings management and to using accruals quality as an alternative proxy for accrual-based earnings management. The insignificance of the relationship between CSR and culture might be explained by the circumstance that within this study, the sample does not distinguish between firms that use CSR in order to be more transparent and firms that use CSR in an opportunistic manner. Because of the opportunistic behaviour of this latter group, these firms are expected to show higher levels of earnings management compared to the transparent firms. The transparent firms compensate for the opportunistic firms, which can result in insignificant outcomes. Therefore, more elaboration is needed regarding which firms use CSR opportunistically and which firms use CSR for transparency purposes.

1. Introduction

The exceptional corporate disgraces, such as Enron and Ahold, have enlarged the cognizance among firms that preserving the public image and reputation of a firm is a serious element of a firm's existence and accomplishments (Calegari et al. 2010). Besides an increasing focus on reputation, several environmental publications have demanded greater attention to the environmental problems our earth is facing. More awareness regarding the chase for a sustainable version of capitalism is necessary. In the business environment, the tendency to concede to this necessity has been growing: a large variety of sustainable business initiatives has been applied, such as making sure that idle assets are being disposed in an environmental-friendly way and by increasing the focus on a cutback of carbon emissions (Simnet et al. 2009). In addition to the practical progress, firms started to disclose information about their sustainability in the form of corporate social responsibility (CSR) reports (Dahlsrud 2008). These 'CSR' reports focus on several categories like environmental performance, human rights and product responsibility and they are disclosed by an increasing amount of firms over the past years (Simnet et al. 2009). However, implementing such social revelations does not have to aim solely on contributing to the environment; it can contribute to preserving the firm's reputation as well (Calegari et al. 2010). Because of the voluntary aspect, there are no requirements on these types of disclosures. Therefore, the apparent and actual credibility of this type of disclosures is more questionable than disclosures that are subject to requirements such as GAAP or IFRS (Simnet et al. 2009).

Royal Dutch Shell, the largest company worldwide producing petroleum products, is one example of a firm that has started to report their environmental performance voluntarily. Their sustainability report of 2015 includes the following quote by CEO Ben van Beurden: 'Sustainability, for me, is essential to our responsible operation and to being a valued and respected member of society' (Shell Sustainability Report 2015, p. 3). This quote seems to suggest that the operations of Royal Dutch Shell are subordinate to sustainability since their CEO regards this as essential. However, it can be argued that this statement emanates from an opportunistic point of view; it may be adopted in order to serve the managers self-interest and to make the firm look superior and more transparent (Kim et al. 2012). In the end, Royal Dutch Shell is namely still one of the main producers of oil. Oil is an important fossil fuel produced in

order to combust, which creates releases of carbon dioxide. Carbon dioxide is considered as having the largest impact on the global warming issue (Bolin & Doos 1989). Besides that, Royal Dutch Shell is known for its oil spills, which damages the surrounding livelihoods and has a detrimental effect on the environment (Frynas 2005). Royal Dutch Shell's core activities are therefore somewhat the opposite of activities subordinate to the general interest and to creating sustainability. It is a major step that Royal Dutch Shell shows its recognition of the need to justify its wide impact on society by disclosing CSR reports. However, taking their core activities into account, it can be argued that Royal Dutch Shell uses these reports as PR exercises or as window dressing mechanisms (Frankental 2001).

A recent study showed that BP, one of the main competitors of Royal Dutch Shell, used extensive social and environmental disclosures when BP was facing great risk of a downgrading reputation. Because of BP's undertakings, a massive oil spill in the Gulf of Mexico occurred, which led to enormous environmental damage. BP chose to disclose the superior quality of their management in an attempt to distract the public's attention away from the environmental destruction. This study illustrates how BP exploited the practice of CSR disclosure in order to avoid a downgrading reputation and to mask the environmental debacle. BP used CSR reporting to manage reputational risk throughout the disaster instead of using CSR reporting as a tool to communicate a firm's socially relevant aspirations to the outside (Arora & Lodhia 2015).

The previous case illustrates the use of CSR reporting as a distracting mechanism. Calegari et al. (2010) suggest that spending a firm's resources on CSR activities might also be used as a measured decision in order to fulfill manager's own benefits. Earnings management can be such a decision that has the intention of achieving a manager's own interest. Earnings management is a form of misguiding stakeholders on the true economic performance of the firm or a way of manipulating contractual consequences that are reliant on the financial reports (Healy & Wahlen 1999). In line with Calegari et al. (2012), Kim et al. (2012) pose that, based on the opportunistic financial reporting hypotheses, managers use CSR for their self-interest. For example, CSR creates the impression that a firm is transparent, while it is actually a means to cover up earnings management. CSR also offers the firm a reputational protection, which provides them a permit to perform earnings management (Kim et al. 2012). When a manager is incentivized to use CSR activities in order to perform earnings management with the intention to meet his compensation

contracts, CSR is used for his own interests while the real earnings are being masked (Healy & Wahlen 1999). Prior literature shows that firms truly have the opportunity to use CSR reporting as a mask for their economic justice or as a window-dressing tool for earnings management activities within a firm (Idowu et al. 2015).

The relationship between corporate social responsibility and earnings management has already been examined but faces ambiguity. The results of previous studies are mixed and do not show consistency. Several studies show that the level of earnings management is lower when companies engage in CSR reporting (Gras-Gil et al. 2016, Scholtens & Kang 2012). On the other hand, Martinez-Ferrero et al. (2013) display that CSR can be more favorable on the cost of capital for firms that are using earnings management and Hoi (2013) demonstrates how CSR activities are related to aggressive tax-avoiding practices. Therefore, there is no consistent theory regarding this relationship yet. A knowledge gap exists concerning how the differences in the outcomes of previous literature can be explained. Kim et al. (2012) note that the differences in the use of earnings management might conceivably be found in country differences rather than in CSR activities solely. This paper builds upon this suggestion and attempts to find a consistent theory by including culture as a country-specific factor.

Previous research on earnings management and CSR has focused mainly on the level of investor protection as the country-specific factor (Nabar & Boonlert-u-Thai 2007) or on whether firms are shareholder or stakeholder oriented (Dhaliwal et al. 2012). This research focuses on whether the culture within a country is masculine or feminine as the prevailing determinant in how far CSR is related to the use of earnings management. This seems to be an appropriate approach, since these cultural dimensions are also related to investor protection and the share- or stakeholder orientation of a country. Masculine countries appear to be associated with lower levels of corporate governance and therefore weaker investor protection (Feng et al. 2017). Besides that, femininity is associated with a broader set of stakeholders than masculinity, which means that feminine countries will be more stakeholder oriented and masculine countries more shareholder oriented (Laan Smith et al. 2005). By using culture as the country-specific element, the main focus of previous research on CSR and the main focus of previous research on earnings management is united, which makes culture an appropriate country-specific element for this combined study.

Jia et al. 2015 show how masculinity on the individual level is related to more financial misreporting. This individual characteristic may be extended to the cultural level, which means that a masculine culture might be associated with more financial misreporting as well. Masculinity has already been linked to a low level of conservatism, which generates a greater likelihood of the use of earnings management and CSR as a tool to mask this (Gray 1988). Femininity, on the other hand, is associated with caring and modesty. It is therefore not likely that firms that are operating in countries with feminine cultures misuse CSR since the latter is meant to add value to the quality of society (Gray 1988). Besides that, it seems that firms operating within masculine countries are more likely to engage in earnings management in the first place (Geiger et al. 2006). The characterization of the culture within a country as either feminine or masculine seems to have different relations to CSR and earnings management. Therefore, this paper addresses the following research question:

"What is the relationship between corporate social responsibility and earnings management and how does this relationship vary among countries with masculine and feminine cultures?"

This study combines multiple insights regarding the relationship between CSR reporting and earnings management and the relationship between culture and earnings management. Previous literature only focused on these relationships separately or on these relationships influenced by other internal or external factors, without taking a possible interaction between culture and CSR into account. Therefore, this research contributes to the existing literature by treating CSR and culture as interacting independent variables. By doing so, new light will be shed on the relationship between CSR and culture in general, and more specifically in how these variables interact related to earnings management.

Besides that, previous literature shows different outcomes on the relationship between CSR and earnings management. Several examples that either report a positive relationship or a negative relationship were already mentioned (Gras-Gil et al. 2016, Scholtens & Kang 2012, Martinez-Ferrero et al. 2013). Kim et al. (2012) acknowledge the possibility of the influence of country characteristics on the use of earnings management. However, their research focuses merely on the United States. Therefore, their study does not take country-specific features into account. By taking the country-level aspect of different cultural dimensions within countries into account, the

differences in prior literature can potentially be explained: the previous studies with deviating results might have been performed in countries with differences in cultural environments. When the inclusion of masculinity versus femininity as an institutional independent interacting variable indeed explains the differences in previous literature, consistent theory can be developed. By doing so, this paper expands the existing literature regarding earnings management, CSR reporting, and culture.

The remainder of this paper is organized as follows. Chapter 2 describes the main dependent variable, the independent variables and how the hypotheses were developed. Chapter 3 gives an overview of the research method, the models and the data used to test the models. Chapter 4 shows the results of the regressions and the robustness checks. Chapter 5 provides a summary, conclusions, the limitations of this research and suggestions for further research.

2. Theory and Hypotheses

This chapter deliberates on prior literature regarding the relevant matters of this paper. Earnings management is defined; a description of CSR is provided and the different cultural dimensions which this paper focuses on are portrayed. Eventually, these three matters are combined into the main hypotheses of this research.

2.1 Earnings Management

Healy and Wahlen (1999) state that accounting numbers are intended on communicating the genuine picture of the financials of a firm in a specific year to the external stakeholders of the firm. Accounting data should provide credible information on the firm's performance. However, firms have the opportunity to act in contrast with this aim by managing the firm's earnings. According to Healy and Wahlen (1999), earnings management can be defined as "when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers" (p. 368). It should be noted that earnings management does not only have costs, it can also provide benefits. Probable enhancements in the communication of private and sensitive material to interested parties on the outside can be reached through managers' judgments on the financial statements (Healy & Wahlen 1999). However, extensive usage of earnings management generally reflects the performance of a firm in an erroneous way, which deteriorates the facility outsiders have to oversee the firm (Bozzolan et al. 2015).

Earnings management can be divided into accrual-based earnings management and real earnings management. Accrual-based earnings management is performed by selecting specific accounting policies from a set of generally accepted policies to ensure that the earnings goals are reached (Braam et al. 2015). The use of such explicit discretionary accruals in order to manage the earnings is regarded as accrual-based earnings management. The difference between discretionary and non-discretionary accruals lies in the fact that discretionary accruals are determined by a firm's business model, by its operational setting and by accounting guidelines that do not allow managerial decision-making. Non-discretionary accruals are not required by accounting policies and they are subject to manager's preferences (Christensen et al. 2013). Real

earnings management comprises real operational activities with the aim to manipulate the earnings numbers, such as reducing advertising and training expenses to improve the earnings numbers (Hong & Andersen 2011). Real earnings management is supposed to be more expensive, because it directly influences the firm's performance and operations (Cohen et al. 2008, Martinez-Ferrero et al. 2013, Callao & Jarne 2010). However, compared to accrual-based earnings management, real earnings management is supposed to be harder, since it directly influences the cash flows of a firm (Braam et al. 2015). For this paper, the distinction between real and accrual-based earnings management is not taken into account. The hypotheses will be developed around the total amount of earnings management within firms. However, different measures have to be used for determining the amount of real earnings management and accrual-based earnings management, which is necessary to determine the total amount of earnings management within firms.

Various researchers have already focused on discovering the enticements for firms to use earnings management. Kasanen et al. (1996) found evidence regarding earnings management in order to reach the dividend-based target earnings. Healy and Wahlen (1999) have developed three main categories under which the incentives for using earnings management can be categorized. The first category is summarized as 'capital market motivations', which means that managers want to meet expectations that the capital market has regarding the firm and in order to do so, they manage the earnings of the firm. The second type of incentives is summarized as 'contracting motivations', meaning that managers might be incentivized to manage earnings, because their compensation depends on rates agreed upon in contracts or in order to avoid the breach of a lending covenant. Finally, the category 'regulatory motivations' has been recognized, containing the use of earnings management in order to avoid industry regulations, anti-trust rules, and other legislation. This type of motivations might even incentivize managers to make a firm appear less lucrative in order to be able to obtain protection or subsidy (Healy and Wahlen 1999).

Why firms engage in earnings management practices is not solitary dependent of the previously mentioned incentives. Several institutional factors determine the likelihood of managing earnings. Burgstahler et al. (2006) show that reported earnings are of a higher quality among public firms compared to private firms, that countries with strong legal systems are associated

with fewer earnings management in private and public firms and that a developed capital market structure results in a lower likelihood of earnings management amongst public firms. Additionally, Leuz et al. (2003) and Burghstaler et al. (2006) find that countries with stronger investor protection show fewer earnings management than countries with weaker investor protection systems.

Ultimately, there are also different motives for firms to either engage in real earnings management or in accrual-based earnings management. Family firms compared to non-family firms use earnings management in a more tactical way. This is shown by the fact that these firms circumvent real earnings management, since this could damage the durable value of the firm. Instead of this, family firms focus on retaining the family control by using accrual-based earnings management (Achleitner et al. 2014). Because real earnings management is associated with higher expenses, firms take this into account when deciding which type of earnings management is preferred (Cohen et al. 2008, Martinez-Ferrero et al. 2013, Callao & Jarne 2010). Moreover, the lower risk of detection of real earnings management influences the decision of firms whether to engage in real or accrual-based earnings management (Braam et al. 2015). Lastly, since real earnings management is known to be more aggressive, not every firm might be willing to engage in this type of earnings management (Nabar & Boonlert-U-Thai 2007).

These examples of previous research illustrate that earnings management is proven to be dependent on several internal incentives as well as external factors. This study focuses on broadening the knowledge regarding the internal and external elements that lead to an increase in the use of earnings management

2.2 Corporate Social Responsibility

This paper takes CSR into consideration as an incentive that could induce or dissuade the use of earnings management. CSR can be defined in many ways; Dahslrud (2008) collected 37 different descriptions of this concept. However, all these definitions were consistent in referring to five dimensions which CSR is related to: the stakeholders dimension, the social dimension, the economic dimension, the voluntariness dimension and the environmental dimension. The Commission of the European Communities of 2001 touches all these dimensions in their definition of CSR. They describe CSR as “a concept whereby companies integrate social and

environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (Dahlsrud 2008, p. 7). In general, CSR consists of different aspects, but all these aspects are aiming to be desirable in terms of the objectives and values of our society (Bowen 1952).

In a brief time frame, CSR emerged and became a relevant aspect within many firms. Numerous arguments can be put forward regarding why companies choose to act in a more responsible way while there is no legal reinforcement concerning this responsibility. The reasons can originate from a strategic point of view, they can have a defensive character or they can be fully unselfish and charitable. Organizations are using CSR to be able to differentiate themselves from competitors, in order to improve their reputation and to develop goodwill among important stakeholders, such as the customer and the employees (Lindgreen & Swaen 2010). Overall, the main aim of CSR is focused on contributing to the value of society in combination to the value of the firm. Malik (2015) has proven that socially responsible firms act responsibly in the preparation of their financial reports as well.

This view is supported by the long-term hypothesis or the stakeholder theory; CSR is supposed to positively add to a firm's ethics, reputation, financial performance and relationships with stakeholders (García-Sánchez & García-Meca 2017). CSR seems to have the intention that financial reports have a transparent and high-quality character and that they are useful for decision-making among users (Salweski & Zülch 2014).

Several researchers found results in line with this perspective. Bozzolan et al. (2015) point out how CSR reporting adds value to the firm: the reports form a constraining factor on the use of real earnings management and therefore, it safeguards the preservation of the firm's value. Since it is proven that the use of real earnings management would undermine the basics of the firm's long-term performance, while CSR-activities are positively related to performance, it is less likely that CSR reporting firms engage in real earnings management (Bozzolan et al. 2015). Calegari et al. (2010) argue that CSR encourages improved earnings reporting value, which leads to CSR having a positive effect on firm value. Scholtens and Kang (2011) show that, within Asian countries, CSR acts as a moderator for the use of earnings management. Lee (2017) found that superior CSR performance has resulted into managers motivated to improve the quality of

their financial disclosures. Kim et al. (2012) find evidence that, in line with ethical theories, American firms characterized as corporate social responsible are less likely to perform real or accrual-based earnings management because managers are incentivized to behave ethically. Finally, also Hong and Andersen (2011) discover that American firms considered as corporate socially responsible are less likely to manage earnings. Based on the stakeholder theory and the long-term assumption, the following hypothesis is developed:

H1A. Corporate socially responsible firms are less likely to engage in earnings management than companies who are less corporate socially responsible.

However, previous literature has also shown that CSR is not only used in a completely ethical and responsible way. Power (2004) argues that CSR is merely used as a self-protective strategy: it is considered a mechanism to manage reputational risk. Hemingway and Maclagan (2004) pose that CSR is adopted by firms in an attempt to conceal the effect of company malfeasance. Regarding earnings management and the quality of earnings, CSR has a negative influence according to the agency cost theory because managers use these practices in an opportunistic manner to hide corporate delinquency (García-Sánchez & García-Meca 2017).

This point of view is supported by several prior studies. Gargouri et al. (2010) show that Canadian firms that mainly focus on their responsibility towards the environment and their employees, appear to be more likely to engage in earnings management. The reason for this might be that, because of the costs of these investments, the firm performance would decrease without the use of earnings management (Gargouri et al. 2010). Hoi et al. (2013) show how firms with excessive CSR activities are more likely to engage in an aggressive form of tax-avoiding activities (Hoi et al. 2013). Hall and Stammerjohan (1997) discovered that oil firms were more likely to engage in earnings management when they were facing litigation that could result in potential reputational damages. These firms chose non-working capital accruals in order to decrease their incomes and to face lower damages, since their lower income leads to a lower ability to pay. Taken this into account, it could be argued that firms that are facing damage awards might use CSR investments as a form of real earnings management, aimed at lowering their income. On the other hand, by disclosing their CSR performance, firms can distract the public from their harmful behavior that has led to the possibility of damage awards in the first

place (Hall & Stammerjohan 1997). Salewski and Zülch (2014) find evidence that CSR is not inevitably escorted by high-quality earnings for European firms. Martinez-Ferrero et al. (2013) show how firms use CSR as a mask for their use of discretionary accounting practices on the cost of capital in order to avoid a negative reputation. For the market, it is impossible to determine whether CSR is used as a long-run ethical strategy or as a short-run image improving tool. Prior and Tribó (2008) signal warnings that the use of CSR can be distinguished in affecting the firm's financials or being part of a managerial strategy focused on collecting support from stakeholders while the firm is actually performing unethical activities; such as the unethical form of earnings management. Overall, these practices of CSR reporting all fit into the opportunistic financial reporting hypothesis as posed by Kim et al. (2012), which predicts that CSR results in more likelihood of earnings management because managers act opportunistically and CSR is used in a self-interested sense. This results into the following alternative, opportunistic hypothesis for this study:

H1B. Corporate socially responsible firms are more likely to act opportunistically by engaging in earnings management than companies who are less corporate socially responsible.

2.3 Culture: Masculinity and Femininity

Besides being corporate socially responsible, external or institutional factors also influence the likelihood of the use of earnings management. Culture can be seen as such an institutional and external factor. Religiosity, for instance, has already been proven to be related to income-increasing earnings management (Kanagaretam et al. 2014). Besides characterizing culture based on religiosity, it can be defined in many other ways; the cultural environment can be characterized as individual or collective, as having large power distance or having small power distance or as being masculine or feminine (Gray 1988). The focus in this paper will be on this latter dimension; the distinction between masculine and feminine cultural environments. In feminine countries, modesty and caring are central within society, which can be associated with less likelihood of being involved in unethical practices, such as earnings management. Masculinity can be related to achievement and success, which can be reached by performing earnings management (Gray 1988). Jia et al. (2013) find evidence that confirms the positive

relationship between facial masculinity and financial misreporting. Female CEOs are associated with more conservative earnings and they appear to be more ethical compared to male CEOs (Ho et al. 2014). These illustrations of prior literature might not be only applicable to the actual gender distribution among firms or within countries; it may be linked to the country-level cultures as well. Geiger et al. (2006) show how a higher ranking in the masculinity index by Hofstede (1991) is positively related to decisions regarding the timing of operations in order to manage earnings. Nabar and Boonlert-U-Thai (2007) mention that prior literature has exposed how societal masculinity is associated with citizens to be more likely to accept aggressive behavior and how consumers want firms to keep up with their appearances. This results in more incentives for management to engage in earnings management and report strong revenues (Nabar & Boonlert-U-Thai 2007). Whether the culture within a country is characterized as masculine or as feminine seems to have different relations to financial reporting and earnings management. This leads to the following hypothesis regarding cultural environments and earnings management:

H2. Companies originated in countries that are characterized as feminine are less likely to engage in earnings management than companies originated in countries that are characterized as masculine.

2.4 CSR, Culture and Earnings Management

García-Sánchez and García-Meca (2017) already found that external factors, such as the amount of investor protection, influences the effect that CSR has on the quality of earnings among banks. Similarly, Salewski and Zülch (2014) argue that country-specific aspects can temperate the relation between CSR and earnings quality. Consequently, the relation between CSR and earnings management and the country-specific relation between culture and earnings management can be combined. Combining culture and CSR might result in an explanation for the differences in prior literature. Since a feminine culture is associated with modesty, caring and the quality of life, it is not likely that firms operating in countries where the cultural environment is more feminine are tempted to manage earnings by misusing a tool that has the purpose to add value to the quality of society. Besides that, in feminine cultures it is not even likely that earnings management is being practiced in the first place. On the other hand, because of the association of masculinity with achievement and success, firms might be desperately trying to

reach their goals, which can be done more easily by using earnings management practices which are covered by certain mechanisms such as investing in CSR and disclosing CSR reports (Gray 1988). The caring aspect within feminine countries also suggests that there is less opportunistic behavior; because of the emphasis on morality within these countries, CSR would reduce the incentive to engage in earnings management. This is the opposite for masculine countries, in which opportunism is not an exception and CSR could easily encourage the use of earnings management (Kim et al. 2012). This seems to suggest that being corporate socially responsible within feminine countries results in fewer earnings management compared to being corporate socially responsible within masculine countries. This leads to the following hypothesis:

H3A. There is a moderation effect in which corporate socially responsible firms within countries that are characterized as feminine are less likely to engage in earnings management compared to corporate socially responsible firms in countries characterized as masculine.

Besides this moderating effect, it can be argued that there is a mediating effect between CSR and culture. Strand et al. (2014) argue that feminine cultures generally are more compassionate about the use of CSR performance. They mention Gjolberg's index (2009), which computed the over- and under-representation of companies in CSR performance. This index pointed out how feminine countries scored high, while masculine countries generally showed an inferior CSR performance (Strand et al. 2014). Besides that, the arguments that addressed why it is less likely that firms within feminine countries engage in earnings management can also be related to the increased likelihood of focusing on CSR. Gray (1988) links feminine countries to the quality of life, which can be preserved by firms being corporate socially responsible. Therefore, the cultural category within a country doesn't only effect the use of earnings management, but also the engagement in corporate social responsibility. This leads to the following hypotheses, which helps to understand why CSR affects earnings management:

H3B. There is a mediation effect between CSR and culture, in which firms within countries that are characterized as feminine are more likely to engage in corporate social responsibility and hence are less likely to engage in earnings management compared to firms within countries that are characterized as masculine.

3. Research method

This chapter deliberates on the research method that is used to test the hypotheses that were developed in the previous chapter. A quantitative approach is chosen to confirm or reject the hypotheses. The remainder of this chapter discusses the conceptual model, the regressions, the robustness checks and the selection of the sample.

3.1 Conceptual Model

The following conceptual model describes the moderating effect that is hypothesized in the previous chapter:

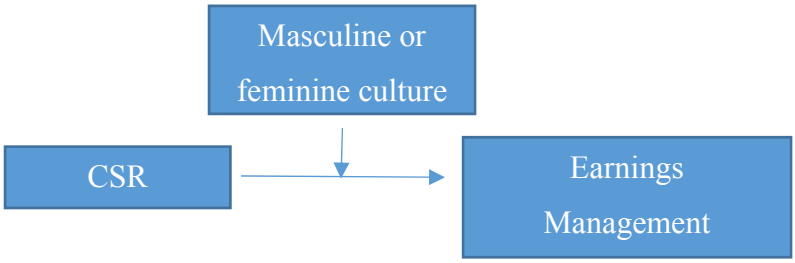

Fig 1: Conceptual Model Moderating Effect

Besides the moderating effect, a mediating effect has been hypothesized as well, which is summarized in the following conceptual model:

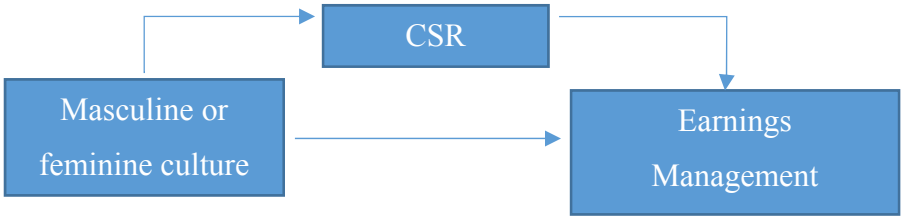

Fig 2: Conceptual Model Mediating Effect

How these variables are measured in order to perform regressions, is operationalized in the following sections.

3.1.1 Dependent Variable: Earnings Management

Earnings management is the dependent variable within this research. In the previous chapter, the distinction between real and accrual-based earnings management has already been discussed. This distinction becomes specifically important for the measurement of earnings management; the two forms of earnings management need to be measured in different ways in order to estimate the total amount of earnings management within a firm.

Accrual-Based Earnings Management

Accrual-based earnings management is measured by taking the discretionary part of the adjustments to accruals into account. Focusing on the discretionary part means measuring discretionary management, which could include accounting manipulation (Martinez-Ferrero et al. 2014). To estimate the discretionary accruals, the Modified Jones Model (Jones, 1991) is used, which is commonly acknowledged and used in the existing literature (Martinez-Ferrero et al. 2014). Based on Dechow (1995), accrual based earnings management is calculated by first estimating the total amount of accruals:

$$\frac{TA_{it}}{A_{it-1}} = \beta_1 \left[\frac{1}{A_{it-1}}\right] + \beta_2 \left[\frac{\Delta SALES_{it}}{A_{it-1}}\right] + \beta_3 \left[\frac{PPE_{it}}{A_{it-1}}\right] + \varepsilon_{it} \quad (1)$$

Where TA_{it} is the total amount of accruals of firm i in year t. This amount is estimated by the equation $TA_{it} = NI_{it} - CFO_{it}$, where NI_{it} is the income before extraordinary items of firm i in year t and CFO_{it} is the operating cash flows of firm i in year t; A_{it-1} is the total assets of firm i at the end of year t – 1; $\Delta SALES_{it}$ is the change in net sales from year t – 1 to t of firm i; PPE_{it} is the net value of property, plant and equipment of firm i at the end of year t.
(*Braam et al. 2015, p. 138)*

Based on the parameters estimated by equation 1, the normal amount of accruals is estimated by the following equation:

$$NA_{it} = \beta_1 \left[\frac{1}{A_{it-1}}\right] + \beta_2 \left[\frac{(\Delta SALES_{it} - \Delta AR_{it})}{A_{it-1}}\right] + \beta_3 \left[\frac{PPE_{it}}{A_{it-1}}\right] \quad (2)$$

Where ΔAR_{it} is the net receivables in year t less net receivables in year t – 1.

Finally, following equation 1 and 2, the amount of discretionary accruals of firm i in year t is estimated by using the following model:

$$DA_{it} = \frac{TA_{it}}{A_{it-1}} - NA_{it} \quad (3)$$

(*Cohen et al. 2008, p. 764*).

Eventually, the absolute values of the discretionary accruals is used for the analyses (*DA_ABS*), since earnings management can consist of either income-increasing as well as income-decreasing accruals (Kim et al. 2012)

Real Earnings Management

Following prior literature, real earnings management is measured based upon three proxies, (Braam et al. 2015, Cohen et al. 2008, Roychowdhury 2006). These three proxies are:

- abnormal levels of cash flow from operations (*RM_CFO*), which is due to the acceleration of the timing of sales through increases in price discounts or due to more lenient credit terms.

- abnormal level of production costs (*RM_PROD*), which occurs because of the overproduction of inventory, which results in lower fixed costs per unit sold and a reduction of costs of goods sold.

- abnormal levels of discretionary expenses (*RM_DISX*), which is generated as a result of decreasing discretionary expenses such as advertising, research and development and administrative (SG&A) expenses.

(*Braam et al. 2015, p. 117*).

These proxies are measured by estimating the normal levels of the cash flow from operations, the production costs and the discretionary expenses. Secondly, the differences between the actual levels and the estimated normal levels are calculated. The differences are considered to be the abnormal parts and are the estimators of the amount of real earnings management (Roychowdhury 2006).

The calculation of the normal level of cash flow from operations (*RM_CFO*) is estimated with the following equation:

$$\frac{CFO_{it}}{A_{it-1}} = \beta_1 \left[\frac{1}{A_{it-1}}\right] + \beta_2 \left[\frac{SALES_{it}}{A_{it-1}}\right] + \beta_2 \left[\frac{\Delta SALES_{it}}{A_{it-1}}\right] + \varepsilon_{it} \quad (4)$$

Where CFO_{it} is the amount of net cash receipts and disbursements resulting from the operations of firm i in year t; $SALES_{it}$ is the amount of net sales of firm i in year t and the other variables are corresponding to the previous descriptions.

The normal level of production costs *(RM_PROD*) is estimated using the following equation:

$$\frac{PROD_{it}}{A_{it-1}} = \beta_0 + \beta_1 \left[\frac{1}{A_{it-1}}\right] + \beta_2 \left[\frac{SALES_{it}}{A_{it-1}}\right] + \beta_3 \left[\frac{\Delta SALES_{it}}{A_{it-1}}\right] + \beta_4 \left[\frac{\Delta SALES_{it-1}}{A_{it-1}}\right] + \varepsilon_{it} \quad (5)$$

Where $PROD_{it}$ is the amount of costs of goods sold of firm i in year t and the other variables are corresponding to the previous descriptions.

The normal level of discretionary expenses (*RM_DISX*) is estimated by using the following equation:

$$\frac{DISX_{it}}{A_{it-1}} = \beta_1 \left[\frac{1}{A_{it-1}}\right] + \beta_2 \left[\frac{\Delta SALES_{it}}{A_{it-1}}\right] + \beta_2 \left[\frac{SALES_{it}}{A_{it-1}}\right] + \varepsilon_{it} \quad (6)$$

Where $DISX_{it}$ is the amount of discretionary expenses, computed as the sum of selling, general and administrative expenses and research and development expenses of firm i in year t. The other variables are corresponding to the previous descriptions.

The scores of RM_CFO and RM_DISX will be reversed to make sure that for all of the proxies, higher residuals correspond with higher levels of real earnings management (Braam et al. 2015). The total amount of real earnings management (COMBINED_REM) is calculated as the total of the abnormal level of cash flow from operations, the abnormal production costs and the abnormal discretionary expenses.

Total Earnings Management

Eventually, to calculate the total amount of earnings management (TOT_EM), the total amount of real earnings management is added up to the total absolute value of the discretionary accruals.

3.1.2 Independent Variables: CSR and Culture

CSR

The first independent variable is how corporate socially responsible firms are, which is measured by using the scores derived from the Thomson Reuters Asset4 (ASSET4) database (Alsaadi et al. 2016). This database collects data from company's public disclosures around the following four scopes: the environmental dimension, the governance dimension, the economic dimension and the social dimension. In line with Kim et al. (2012) and Alsaadi et al. (2016), the effect of corporate governance is excluded in fabricating the CSR score, because this is assumed to be a distinct construct. Therefore, the degree of the corporate social responsibility of a firm is estimated by the environmental, economic and social performance scores derived from ASSET4. The equally weighted average of the yearly performance scores of the environmental, economic and social dimensions is calculated and is used as the measure for a firm's CSR engagement (Alsaadi et al. 2016). The variable is named *CSR*.

Culture

Whether the cultural environment of the country in which a firm is operating is feminine or masculine, is the second independent variable of this study. Based on Hofstede (2010), a selection of countries is made. Culture is added as a dummy variable, which equals 0 when the firm is established in a country with a feminine culture and 1 if the firm is established in a country with a masculine culture. The variable is named *CULT*.

3.1.3 Control Variables

In order to evade the problem of correlated omitted variables, several control variables are included which could influence earnings management, CSR and culture. First, the control variables applied for both CSR and culture are explained. Based on Kim et al. (2012), firm specific growth opportunities and firm size can possibly explain disparity in earnings management and these are therefore included as *MB* and *SIZE*. Earnings management might vary for companies that are audited by large audit firms. Therefore, the variable *BIG4* is included as an indicator variable, which equals 1 for those firms using one of the Big 4 auditors and 0 if otherwise (Kim et al. 2012). Subsequently, there is controlled for the occurrence of an equity offering (*EO)* to control for enticements related to such an offering for earnings management (Kim et al. 2012). Kim et al. (2012) include industry-adjusted ROA (*ADJ_ROA*) to separate the effect of the ethical feature on earnings management after adjusting for the probable effect of financial performance. In line with Pacheco Paredes et al. (2017), this control variable is also applicable for culture. Finally, consistent to the studies of Prior and Tribó (2008) and Pacheco Paredes et al. (2017), a control for financial leverage (*LEV)* is included, estimated by the ratio of total debt to the total value of assets.

Several controls are only applicable for the relationship between CSR and earnings management. Prior and Tribó (2008) specify financial resources (*RESOURCES*), estimated by the ratio of cash flow to total assets, as a standard control in prior literature that studies the connection between variables of financial performance and social performance. Since the CSR score is distinguished from corporate governance, a control variable for corporate governance (*GOVERNANCE)* is included by including a firm's average of the yearly governance score from ASSET4 (Kim et al. 2012). R&D intensity and advertising intensity within the industry are positively related to CSR

and earnings and are therefore included as control variables (*RD_INT* and *AD_IND_INT*) (Kim et al. 2012, Calegari et al. 2010, Gao & Zhang 2015). A control variable for the firm's age (*FIRM_AGE)* is included because CSR and earnings management engagement might change when a firm matures (Kim et al. 2012).

Finally, investor protection is included to control for culture. Investor protection (*INVPRO)* is moderated by culture and associated with accruals management; therefore the interaction of investor protection with culture (*INVPRO*CULT)* is included (Pacheco Paredes et al. 2017). The following table provides an overview of the control variables:

Table 1: Control Variables

Control variable	**Measure**
Applicable for both:	
SIZE	Natural logarithm of the market value of equity (MVE)
MB	Market-to-book equity ratio, measured as the price/book value per share
BIG4	Indicator variable; 1 if the firm is audited by a BIG4 auditor, 0 if otherwise
EO	Indicator variable; 1 if the firm has equity offerings, 0 otherwise.
LEV	Ratio of total debt to the total value of assets
ADJ_ROA	Industry adjusted ROA, where ROA is measured as income before extraordinary items, scaled by lagged total assets.

Applicable for CSR:	
GOVERNANCE	Average of a firm's yearly governance ASSET4 score
RD_INT	R&D expenses / net sales
AD_IND_INT	Advertising intensity for the two-digit SIC code industry for the year
FIRM_AGE	Natural logarithm of (1 + number of years since the firm's initial public offering)
RESOURCES	The ratio of cash flow to total assets
Applicable for Culture:	
INVPRO	The average of the five legal variables from La Porta et al (1998)
*INVPRO*CULT*	The interaction between the investor protection score and the culture within a country

3.2 Hypotheses and Regressions

In this section, the regressions used to test the hypotheses are deliberated upon.

3.2.1. Hypotheses 1A and 1B

H1A. Companies that are characterized as corporate socially responsible are less likely to engage in earnings management than companies who are less corporate socially responsible.

H1B. Companies that are characterized as corporate socially responsible are more likely to engage in earnings management than companies who are less corporate socially responsible.

These hypotheses are tested with the following regression model:

$$Y_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 RESOURCES_{it} + \alpha_9 GOVERNANCE_{it} + \alpha_{10} RD\_INT_{it} + \alpha_{11} AD\_IND\_INT_{it} + \alpha_{12} FIRM\_AGE_{it} + \varepsilon_{it} \quad (7)$$

Where Y_{it} consists of the total amount of earnings management (*TOT_EM)*. If α_1 appears to be positive, this means that hypotheses 1B is confirmed. A higher score of CSR would result into more earnings management. If α_1 appears to be negative, this would indicate that hypotheses 1A is confirmed; meaning that a lower degree of CSR results in less earnings management.

3.2.2 Hypothesis 2

H2. Companies originated in countries that are characterized as feminine are less likely to engage in earnings management than companies originated in countries that are characterized as masculine.

Hypothesis 2 is tested by using the following equation:

$$Y_{it} = \alpha_0 + \alpha_1 CULT_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 INVPRO_{it} + \alpha_9 INVPRO_{it} * CULT_{it} + \varepsilon_{it} \quad (8)$$

Based on hypotheses 2, it is expected that α_1 is positive. Since CULT is a dummy variable that equals 1 for masculine countries, a positive sign for α_1 would indicate a higher amount of earnings management. This would be in line with hypothesis 2, since this hypothesis expects more earnings management within masculine countries.

3.2.3 Hypotheses 3A and 3B

H3A. There is a moderation effect in which corporate socially responsible firms within countries that are characterized as feminine are less likely to engage in earnings management compared to corporate socially responsible firms in countries characterized as masculine.

H3B. There is a mediation effect between CSR and culture, in which firms within countries that are characterized as feminine are more likely to engage in corporate social responsibility and hence are less likely to engage in earnings management compared to firms within countries that are characterized as masculine.

Hypothesis 3A is tested by using the following regression:

$$Y_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 CULT_{it} * CSR_{it} + \alpha_4 SIZE_{it-1} + \alpha_5 MB_{it-1} + \alpha_6 BIG4_{it} + \alpha_7 EO_{it} + \alpha_8 LEV_{it-1} + \alpha_9 ADJ\_ROA_{it-1} + \alpha_{10} RESOURCES_{it} + \alpha_{11} GOVERNANCE_{it} + \alpha_{12} RD\_INT_{it} + \alpha_{13} AD\_IND\_INT_{it} + \alpha_{14} FIRM\_AGE_{it} + \alpha_{15} INVPRO_{it} + \alpha_{16} INVPRO_{it} * CULT_{it} + \varepsilon_{it} \quad (9)$$

Hypothesis 3A expects less earnings management in feminine countries, therefore α_2 is expected to be positive. CSR is expected to result in less earnings management, therefore α_1 is expected to be negative. Hypothesis 3A predicts that firms engage in less earnings management when CSR is used in feminine countries compared to the expectation that CSR will lead to more earnings management in masculine countries. Therefore, α_3 is expected to be positive.

Hypothesis 3B is tested by using the following regression model:

$$Y_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 SIZE_{it-1} + \alpha_4 MB_{it-1} + \alpha_5 BIG4_{it} + \alpha_6 EO_{it} + \alpha_7 LEV_{it-1} + \alpha_8 ADJ\_ROA_{it-1} + \alpha_9 RESOURCES_{it} + \alpha_{10} GOVERNANCE_{it} + \alpha_{11} RD\_INT_{it} + \alpha_{12} AD\_IND\_INT_{it} + \alpha_{13} FIRM\_AGE_{it} + \alpha_{14} INVPRO_{it} + \alpha_{15} INVPRO_{it} * CULT_{it} + \varepsilon_{it} \quad (10)$$

Hypotheses 3B will appear to be correct if α_1 in equation (8) is larger than α_2 in equation (10) and if α_1 in equation (10) is significant and positive, since this would mean that the amount of earnings management is higher within masculine countries. Besides that, α_1 in equation (10) has to be negative, since this would mean that the engagement in CSR reporting results in less earnings management.

3.3 Robustness Checks

The robustness of the results are tested in three different ways. First of all, instead of performing a regression on the total amount of earnings management, a distinction is made between accrual based earnings management and real earnings management. Secondly, accruals quality is included as an alternative measure for accrual-based earnings management (Kim et al. 2012). In line with Kim et al. (2012) and Dechow and Dichev (2002), this variable (*AQ*) is defined by the degree to which working capital accruals record into operating cash flow realizations. An extra regression is performed with *AQ* instead of *DA_ABS* as the dependent variable. *AQ* is calculated as the standard deviation of the residuals from the following industry specific regressions:

$$\Delta WC_t = \alpha_0 + \alpha_1 CFO_{it-1} + \alpha_2 CFO_{it} + \alpha_3 CFO_{it+1} + \alpha_4 \Delta SALES_{it} + \alpha_5 PPEG_{it} + \varepsilon_{it} \quad (11)$$

Where $PPEG_{it}$ is current year gross level of property plant and equipment and ΔWC_t is the change in working capital, calculated as follows:

$$\Delta WC_t = \Delta Accounts\ Receivable + \Delta Inventory - \Delta Accounts\ Payable - \Delta Taxes\ Payable + \Delta Other\ Assets \quad (12)$$

The final robustness check is performed by transforming CSR into a dummy variable. The median of the CSR score for every year is calculated. The dummy variable is set to 1 for firms that have a CSR score which is equal to or higher than the median and the dummy is set to 0 for firms that have a CSR score which is lower than the median.
If the results from these three additional tests are consistent with the regressions performed on total earnings management, the results of this study are robust to these additional controls.

3.4 Sample Selection

The sample consists of listed firms originated in several masculine and feminine countries, which are selected based on Hofstede (2010). The four European countries that score highest in the masculinity index of Hofstede (2010) and the four European countries that score lowest in the masculinity index of Hofstede (2010) are designated. The extremes are chosen because this creates more likelihood to be able to perceive differences among the different cultural characterizations, if there are any. Firms originated in Sweden, Norway, Finland and the Netherlands are included to measure the CSR and earnings management engagement in feminine countries. Firms established in Italy, Germany, the United Kingdom and Austria are mainly masculine and these countries are included to measure the CSR and earnings management engagement in masculine countries (Hofstede 2010).

As previously mentioned, data on the CSR ratings of firms are derived from Thomson Reuters Asset4 database. These data are matched with the Orbis database and a sample of firms is collected between 2007-2015. In line with prior literature, financial institutions are excluded (Kim et al. 2012). Table 2 provides an overview of the number of firm year observations per country and per each of the two cultural characterizations.

Table 2. Sample Description

Country	No. of firm year observations	
Feminine		
Finland	90	
Sweden	64	
Netherlands	41	
Norway	29	
Subtotal		224
Masculine		
United Kingdom	567	
Germany	188	
Austria	35	
Italy	2	
Subtotal		792
Total		**1016**

4. Results

This chapter provides the results of the research. An overview of the descriptive statistics of the variables is presented, followed by the correlation matrix which shows the correlation between the variables. Subsequently, the results on the hypotheses are demonstrated, followed by the robustness checks. Finally, a short summary of the results is provided.

4.1 Descriptive Statistics

Table 3. Descriptive Statistics by Feminine Countries and Masculine Countries

	Feminine Countries					Masculine Countries				
	Obs	**Mean**	**Std. Dev.**	**Min**	**Max**	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
Dependent Variables										
DA	224	-0.0258	0.0840	-0.3105	0.2342	792	-0.0254	0.0708	-0.2878	0.2477
DA_ABS	224	0.0619	0.0623	0.0000	0.3105	792	0.0556	0.0507	0.0000	0.2878
RM_PROD	224	0.0398	0.2251	-1.0717	0.5423	792	0.0244	0.2553	-1.2676	0.6393
RM_CFO	224	-0.0050	0.0700	-0.2479	0.1658	792	-0.0012	0.0668	-0.2490	0.1797
RM_DISX	224	0.0621	0.1966	-0.8728	0.4689	792	0.0725	0.2145	-0.8126	0.7306
COMBINED_REM	224	0.0969	0.4331	-2.0582	0.9732	792	0.0957	0.4848	-2.1513	1.2589
TOT_EM	224	0.1588	0.4403	-2.0434	1.0602	792	0.1513	0.4842	-1.9761	1.2712
Variable of Interest										
CSR	224	61.3095	15.1287	13.3533	90.9733	792	61.9238	14.3101	18.8467	95.6067
CULT*CSR	224	0	0	0	0	792	61.9238	14.3101	18.8467	95.6067
Control Variables										
SIZE	224	8.2975	1.1929	5.0536	11.3110	792	7.8434	1.3635	5.0536	11.5227
MB	224	2.0555	3.3177	-11.568	33.796	792	2.5906	4.3729	-11.568	33.796
BIG4	224	0.8616	0.3461	0	1	792	0.9697	0.1715	0	1
EO	224	0.2411	0.4287	0	1	792	0.4066	0.4915	0	1
LEV	224	0.1573	0.1546	-0.2036	0.5778	792	0.1412	0.1929	-0.3805	0.6021
ADJ_ROA	224	-0.0036	0.0623	-0.1896	0.2139	792	0.0000	0.0590	-0.1896	0.2139
RESOURCES	224	0.0956	0.0684	-0.0593	0.3334	792	0.0975	0.0658	-0.0593	0.3375
GOVERNANCE	224	78.1834	20.9208	10.25	98.07	787	80.505	18.3139	7.8	99.7
RD_INT	224	0.0202	0.0324	0	0.1831	792	0.0151	0.0375	0	0.2547
AD_IND_INT	224	0.0085	0.1787	-0.2385	0.5623	792	-0.0142	0.1379	-0.3143	0.5354
FIRM_AGE	224	3.1030	0.5689	2.3026	4.6444	792	3.1314	0.6265	1.7918	4.9972
INVPRO	224	21.1299	1.2040	19.12	22.6	792	21.1697	3.6584	14.58	23.47
INVPRO*CULT	224	0	0	0	0	792	21.1697	3.6584	14.58	23.47

LEGEND: DA = discretionary accruals; DA_ABS = absolute value of discretionary accruals; RM_PROD = the abnormal level of production costs; RM_CFO = the abnormal level of cash flow from operations; RM_DISX = the abnormal level of discretionary expenses; COMBINED_REM = the total amount of real earnings management; TOT_EM = total amount of earnings management (real + accrual based); TOT_EM = total amount of earnings management (real + accrual-based); CSR = Corporate Social Responsibility ASSET4 score; CULT = cultural dimension, 1 if masculine, 0 if feminine; CULT*CSR = interaction effect between culture and CSR, SIZE = firm size, logarithm of market value of equity; MB = firm's growth opportunities, price/book value per share; BIG4 = firm's type of auditor, 1 if BIG4 auditor, 0 otherwise; EO = equity offerings, 1 if yes, 0 if no; LEV = financial leverage, total debt/total assets; ADJ_ROA = industry adjusted return on assets, income before extraordinary items/lagged total assets; RESOURCES = financial resources, cash flow/total assets; GOVERNANCE = Governance ASSET4 score; RD_INT = research & development intensity, R&D expenses/net sales; AD_IND_INT = advertising intensity of the industry, advertising expenses/net sales; FIRM_AGE = firm's age, logarithm of 1+number of years since the firm's IPO; INVPRO = investor protection, average of the five legal variables from la Porta et al. (1998); INVPRO*CULT = interaction effect between investor protection and culture.

Table 3 shows the statistical description of the variables separated by cultural dimension. The number of observations, the mean, the standard deviation, the minimum and the maximum are displayed in the table. The table indicates that on average, the total amount of earnings management is lower within masculine countries than within feminine countries (0.1513 compared to 0.1588). Besides that, the CSR score among masculine countries appears to have a greater average than the CSR score among feminine countries (61.9238 compared to 61.3095). These statistics seem to suggest that firms within masculine countries are less likely to engage in earnings management and are more likely to act corporate socially responsible compared to firms within feminine countries. This is inconsistent with the hypotheses, since the hypotheses expect higher CSR scores and lower earnings management levels within feminine countries than within masculine countries.

4.2 Correlation Matrix

Table 4. Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	TOT_EM	1.0000																		
	SIG																			
2	DA_ABS	0.0749**	1.0000																	
	SIG	0.0170																		
3	COMBINED_REM	0.9936***	-0.0379	1.0000																
	SIG	0.0000	0.2275																	
4	CSR	0.0100	0.0079	0.0092	1.0000															
	SIG	0.7493	0.8020	0.7703																
5	CULT	-0.0066	-0.0489	-0.0011	0.0176	1.0000														
	SIG	0.8336	0.1191	0.9724	0.5755															
6	CULT*CSR	0.0006	-0.0517*	0.0064	0.4006***	0.8973***	1.0000													
	SIG	0.9844	0.0998	0.8373	0.0000	0.0000														
7	SIZE	-0.0916***	-0.1005***	-0.0804*	-0.0091	-0.1405***	-0.1142***	1.0000												
	SIG	0.0035	0.0013	0.0103	0.7714	0.0000	0.0003													
8	MB	-0.2146***	-0.0439	-0.2101***	0.0139	0.0533*	0.0458	0.0725**	1.0000											
	SIG	0.0000	0.1622	0.0000	0.6591	0.0898	0.1450	0.0208												
9	BIG4	-0.0634**	-0.0356	-0.0596*	-0.0422	0.1980***	0.1586***	0.0036	-0.0211	1.0000										
	SIG	0.0432	0.2569	0.0577	0.1791	0.0000	0.0000	0.9091	0.5014											
10	EO	-0.0177	-0.0287	-0.0145	0.0017	0.1421***	0.1270***	-0.1032***	-0.0287	0.0572*	1.0000									
	SIG	0.5741	0.3615	0.6454	0.9580	0.0000	0.0000	0.0010	0.3602	0.0682										
11	LEV	-0.0175	0.0266	-0.0205	-0.0075	-0.0361	-0.0356	-0.0103	-0.0611*	-0.0496	0.0360	1.0000								
	SIG	0.5781	0.3964	0.5137	0.8107	0.2507	0.2570	0.7419	0.0516	0.1144	0.2513									
12	ADJ_ROA	-0.1445***	0.0305	-0.1483***	-0.0381	0.0253	0.0116	0.1482***	0.1770***	0.0333	-0.0583*	-0.2497***	1.0000							
	SIG	0.0000	0.3312	0.0000	0.2251	0.4208	0.7116	0.0000	0.0000	0.2896	0.0630	0.0000								
13	RESOURCES	-0.4590***	0.1888***	-0.4813***	-0.0713**	0.0114	-0.0285	0.0780**	0.2160***	-0.0220	-0.0312	0.0086	0.4320***	1.0000						
	SIG	0.0000	0.0000	0.0000	0.0230	0.7170	0.3634	0.0128	0.0000	0.4829	0.3208	0.7835	0.0000							
14	GOVERNANCE	0.0262	-0.0386	0.0307	0.0405	0.0509	0.0462	0.0813***	0.0530*	-0.0412	0.0303	0.0339	-0.0057	-0.0082	1.0000					
	SIG	0.4054	0.2198	0.3299	0.1979	0.1055	0.1418	0.0097	0.0923	0.1911	0.3360	0.2815	0.8554	0.7950						
15	RD_INT	-0.1349***	-0.0347	-0.1312***	-0.0258	-0.0578*	-0.0349	0.0977***	0.0229	0.0074	0.0691**	-0.2619***	0.0392	0.0021	-0.0697**	1.0000				
	SIG	0.0000	0.2697	0.0000	0.4114	0.0656	0.2667	0.0018	0.4653	0.8143	0.0276	0.0000	0.2113	0.9466	0.0267					
16	AD_IND_INT	-0.5878***	0.0312	-0.5925***	0.0166	-0.0636**	-0.0525*	-0.0359	-0.0349	0.0960***	0.0561*	0.0870***	-0.0975***	-0.0130	0.0094	0.0668**	1.0000			
	SIG	0.0000	0.3212	0.0000	0.5976	0.0426	0.0942	0.2525	0.2667	0.0022	0.0740	0.0055	0.0019	0.6781	0.7664	0.0332				
17	FIRM_AGE	0.1547***	-0.1616***	0.1732***	0.0509	0.0192	0.0367	-0.0360	-0.0251	-0.0500	0.0312	0.0078	0.0031	-0.1904***	0.0022	-0.0053	-0.0372	1.0000		
	SIG	0.0000	0.0000	0.0000	0.1047	0.5417	0.2424	0.2517	0.4243	0.1111	0.3206	0.8047	0.9215	0.0000	0.9452	0.8660	0.2358			
18	INVPRO	-0.0628**	0.1016***	-0.0745**	-0.0557*	0.0050	-0.0204	-0.2804***	0.0949***	0.0344	0.0834***	0.0246	0.0724*	0.1714***	0.0666**	-0.1135***	0.0075	0.1126***	1.0000	
	SIG	0.0452	0.0012	0.0176	0.0762	0.8726	0.5159	0.0000	0.0025	0.2739	0.0078	0.4331	0.0211	0.0000	0.0342	0.0003	0.8125	0.0003		
19	INVPRO*CULT	-0.0317	-0.0131	-0.0303	-0.0007	0.9385***	0.8334***	-0.2283***	0.0818***	0.2187***	0.1688***	-0.0263	0.0461	0.0631**	0.0688**	-0.0870***	-0.0499	0.0598*	0.3448***	1.0000
	SIG	0.3131	0.6759	0.3352	0.9810	0.0000	0.0000	0.0000	0.0091	0.0000	0.0000	0.4028	0.1422	0.0444	0.0287	0.0055	0.1122	0.0567	0.0000	

***, **, *** = Significant at 0.10, 0.05 and 0.01 level**

Table 4 shows the correlation coefficients for the dependent variables (TOT_EM, DA_ABS, COMBIND_REM), the variables of interest (CSR, CULT, CSR*CULT) and the control variables (SIZE, MB, BIG4, EO, LEV, ADJ_ROA, RESOURCES, GOVERNANCE, RD_INT, AD_IND_INT, FIRM_AGE, INVPRO, INVPRO*CULT). The significant negative correlation between DA_ABS and CULT*CSR indicates that within masculine countries, firms are less likely to engage in accrual-based earnings management. This is in line with table 3, but inconsistent with the hypotheses. The table shows no other significant correlations between the dependent variables and the variables of interest. The table does illustrate a significant correlation between the dependent variables; real earnings management correlates with the total amount of earnings management and the discretionary accruals correlate with the total amount of earnings management as well. This can be explained by the fact that the total amount of earnings management consists of both the amount of the discretionary accruals and the amount of real earnings management. Besides that, some correlation between the variables of interest can be derived from the table as well; the interaction effect CULT*CSR correlates significantly with CULT and CSR, which has the same reason as why there is a significant correlation between the dependent variables.

Within the control variables, strong correlation can be found between *INVPRO*CULT* and *CULT*CSR, CULT,* and *INVPRO*, which is again due to the previous mentioned reasons; *INVPRO*CULT* consists of an interaction between those variables. Besides that, table 4 displays several other significant correlations between the control variables; *RD_INT* is for example negatively related to *LEV*, which can logically be explained. To be able to enlarge the research and development expenses within a firm, which leads to a higher R&D intensity, more debt has to be attracted. Therefore, the negative correlation between these two variables is not surprising. The correlation between *ADJ_ROA* and *LEV* can logically be explained by the fact that both of the variables are calculated by dividing certain accounts by total assets or lagged total assets. Even though there are logical reasons for these correlations, it has to be unquestionable that there is no significantly high correlation on regression level or multicollinearity. To control for this, the variance inflation factors (VIF) of the variables are calculated. Within the testing of hypotheses 2, 3A and 3B, The VIF values for *INVPRO*CULT, CULT* and *INVPRO* are very high. However, this doesn't give any problems since the correlation between these variables is already explained. Within hypothesis 3A, the VIF value for *CULT*CSR* is also high, but again

this correlation has already been explained. The other variables do not show any high values of the VIF values. Therefore, there is no multicollinearity among the variables. All of the variables can be used in performing the regressions.

4.3 Multivariate Analyses

Table 5 provides an overview of the results after testing the hypotheses on the total amount of earnings management.

Table 5. Multivariate Test: Total Earnings Management

Test for hypotheses 1A + 1B: $TOT\_EM_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 RESOURCES_{it} + \alpha_9 GOVERNANCE_{it} + \alpha_{10} RD\_INT_{it} + \alpha_{11} AD\_IND\_INT_{it} + \alpha_{12} FIRM\_AGE_{it} + \varepsilon_{it}$

Test for hypothesis 2: $TOT\_EM_{it} = \alpha_0 + \alpha_1 CULT_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 INVPRO_{it} + \alpha_9 INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

Test for hypothesis 3A: $TOT\_EM_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 CULT_{it} * CSR_{it} + \alpha_4 SIZE_{it-1} + \alpha_5 MB_{it-1} + \alpha_6 BIG4_{it} + \alpha_7 EO_{it} + \alpha_8 LEV_{it-1} + \alpha_9 ADJ\_ROA_{it-1} + \alpha_{10} RESOURCES_{it} + \alpha_{11} GOVERNANCE_{it} + \alpha_{12} RD\_INT_{it} + \alpha_{13} AD\_IND\_INT_{it} + \alpha_{14} FIRM\_AGE_{it} + \alpha_{15} INVPRO_{it} + \alpha_{16} INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

Test for hypothesis 3B: $TOT\_EM_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 SIZE_{it-1} + \alpha_4 MB_{it-1} + \alpha_5 BIG4_{it} + \alpha_6 EO_{it} + \alpha_7 LEV_{it-1} + \alpha_8 ADJ\_ROA_{it-1} + \alpha_9 RESOURCES_{it} + \alpha_{10} GOVERNANCE_{it} + \alpha_{11} RD\_INT_{it} + \alpha_{12} AD\_IND\_INT_{it} + \alpha_{13} FIRM\_AGE_{it} + \alpha_{14} INVPRO_{it} + \alpha_{15} INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

	PRED SIGN	HYPOTHESES 1A + 1B		HYPOTHESIS 2		HYPOTHESIS 3A		HYPOTHESIS 3b	
TOT_EM		**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**
CSR	+/-	-0.0006	0.375			-0.0000	0.959	-0.0005	0.425
CULT (1-sided)	+			1.0717	0.035**	0.7146	0.042**	0.6644	0.045**
CULT*CSR	+				-0.0006	0.700			
SIZE		-0.0237	0.001***	-0.0283	0.015**	-0.0278	0.000***	-0.0281	0.000***
MB		-0.0149	0.000***	-0.0216	0.000***	-0.0144	0.000***	-0.0144	0.000***
BIG4		-0.0320	0.447	-0.0896	0.201	0.0223	0.630	0.0221	0.634
EO		-0.0003	0.986	-0.0218	0.476	0.0106	0.598	0.0106	0.599
LEV		0.0300	0.588	-0.1500	0.063*	0.0282	0.611	0.0273	0.622
ADJ_ROA		0.2039	0.276	-0.8904	0.001***	0.2149	0.251	0.2116	0.258
RESOURCES		-3.0861	0.000***			-3.0867	0.000***	-3.0814	0.000***
GOVERNANCE		0.0009	0.088*			0.0010	0.062*	0.0010	0.057*
RD_INT		-1.0642	0.000***			-1.0589	0.000***	-1.0727	0.000***
AD_IND_INT		-1.8862	0.000***			-1.8910	0.000***	-1.8907	0.000***
FIRM_AGE		0.0335	0.035**			0.03778	0.019**	0.0379	0.018**
INVPRO				0.0411	0.136	0.03187	0.083*	0.0312	0.088*
INVPRO*CULT				-0.0505	0.073*	-0.0350	0.062*	-0.0343	0.065*
_cons		0.5679	0.000	-0.3274	0.596	-0.1339	0.757	-0.0917	0.827
R-squared		0.5977		0.0758		0.6015		0.6015	
Adj R-squared		0.5929		0.0675		0.5951		0.5955	
No of obs.		1,011		1,016		1,011		1,011	

***, **, *** = Significant at 0.10, 0.05 and 0.01 level**

LEGEND: TOT_EM = total amount of earnings management (real + accrual-based); CSR = Corporate Social Responsibility ASSET4 score; CULT = cultural dimension, 1 if masculine, 0 if feminine; CULT*CSR = interaction effect between culture and CSR, SIZE = firm size, logarithm of market value of equity; MB = firm's growth opportunities, price/book value per share; BIG4 = firm's type of auditor, 1 if BIG4 auditor, 0 otherwise; EO = equity offerings, 1 if yes, 0 if no; LEV = financial leverage, total debt/total assets; ADJ_ROA = industry adjusted return on assets, income before extraordinary items/lagged total assets; RESOURCES = financial resources, cash flow/total assets; GOVERNANCE = Governance ASSET4 score; RD_INT = research & development intensity, R&D expenses/net sales; AD_IND_INT = advertising intensity of the industry, advertising expenses/net sales; FIRM_AGE = firm's age, logarithm of 1+number of years since the firm's IPO; INVPRO = investor protection, average of the five legal variables from la Porta et al. (1998); INVPRO*CULT = interaction effect between investor protection and culture.

The coefficient for CSR in testing hypothesis 1A and 1B is negative, in line with hypothesis 1A. The adjusted R-squared amounts up to 0.5977, which means that 59,97% of the variance is explained by the model. However, the coefficient for CSR is not significant. Therefore, neither hypothesis 1A nor hypothesis 1B can be confirmed. It cannot be verified that corporate socially responsible firms are less or more likely to engage in earnings management.

Testing hypotheses 2 shows an adjusted R-squared of 0.0675; the model explains only 6,75% of the variance; this might indicate that there are several omitted variables. The coefficient for culture is positive, consistent with the expectation. A one-sided test proves that culture is significant. Therefore, hypotheses 2 can be confirmed; within masculine countries, firms are more likely to engage in earnings management compared to firms within feminine cultures.

The regression on hypothesis 3A shows an adjusted R-squared of 0.5951 and a negative, minor coefficient for CSR. This is not in accordance with the prediction of a positive coefficient and besides that, the beta is insignificant as well. Also the coefficient for the interaction effect between CSR and culture has a negative sign instead of the predicted positive sign and also this beta does not show any significance. However, the beta for culture is in line with the hypothesis, since this coefficient is positive and significant after one-sided testing. Nevertheless, hypothesis 3A cannot be confirmed. The results do not support the expectation of a moderation effect between CSR and culture on the likelihood of the engagement of firms in earnings management.

Finally, the testing of hypothesis 3B displays an adjusted R-squared of 0.5955, a negative and insignificant beta for CSR and a positive and significant beta for culture. Hypothesis 3B cannot be confirmed since the coefficient for CSR has to be significant; a mediation effect between CSR and culture on the likelihood of firms to engage in earnings management cannot be found.

The insignificance of the results regarding CSR might be explained by the suggestion that some firms within the sample of this study use CSR for transparency purposes, whereas other firms use CSR opportunistically. If this is truly the case, combining results on both the opportunistically behaving firms and the transparent firms might lead to insignificance. The transparent firms, which do not use CSR as a mask for earnings management, compensate with their high CSR scores and low earnings management levels for the opportunistic firms, which are expected to show high earnings management levels because they do use CSR for other purposes.

4.4 Additional tests

The following section provides the additional tests to validate if the results of table 5 are robust.

Accrual-based Earnings Management

Table 6A shows the testing of the hypotheses with accrual based earnings management instead of total earnings management as the dependent variable.

Table 6A: Robustness Test: Accrual-based Earnings Management

Test for hypotheses 1A + 1B: $DA\_ABS_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 RESOURCES_{it} + \alpha_9 GOVERNANCE_{it} + \alpha_{10} RD\_INT_{it} + \alpha_{11} AD\_IND\_INT_{it} + \alpha_{12} FIRM\_AGE_{it} + \varepsilon_{it}$

Test for hypothesis 2: $DA\_ABS_{it} = \alpha_0 + \alpha_1 CULT_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 INVPRO_{it} + \alpha_9 INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

Test for hypothesis 3A: $DA\_ABS_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 CULT_{it} * CSR_{it} + \alpha_4 SIZE_{it-1} + \alpha_5 MB_{it-1} + \alpha_6 BIG4_{it} + \alpha_7 EO_{it} + \alpha_8 LEV_{it-1} + \alpha_9 ADJ\_ROA_{it-1} + \alpha_{10} RESOURCES_{it} + \alpha_{11} GOVERNANCE_{it} + \alpha_{12} RD\_INT_{it} + \alpha_{13} AD\_IND\_INT_{it} + \alpha_{14} FIRM\_AGE_{it} + \alpha_{15} INVPRO_{it} + \alpha_{16} INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

Test for hypothesis 3B: $DA\_ABS_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 SIZE_{it-1} + \alpha_4 MB_{it-1} + \alpha_5 BIG4_{it} + \alpha_6 EO_{it} + \alpha_7 LEV_{it-1} + \alpha_8 ADJ\_ROA_{it-1} + \alpha_9 RESOURCES_{it} + \alpha_{10} GOVERNANCE_{it} + \alpha_{11} RD\_INT_{it} + \alpha_{12} AD\_IND\_INT_{it} + \alpha_{13} FIRM\_AGE_{it} + \alpha_{14} INVPRO_{it} + \alpha_{15} INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

	PRED SIGN	HYPOTHESES 1A + 1B		HYPOTHESIS 2		HYPOTHESIS 3A		HYPOTHESIS 3b	
TOT_EM		**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**
CSR	+/-	0.0001	0.388			0.0004	0.110	0.0001	0.310
CULT (1-sided)	+			0.0335	0.312	0.0102	0.443	-0.0182	0.606
CULT*CSR	+					-0.0003	0.206		
SIZE		-0.0042	0.001***	-0.0037	0.005***	-0.0035	0.008***	-0.0037	0.006***
MB		-0.0011	0.009***	-0.007	0.109	-0.0011	0.006***	-0.0011	0.006***
BIG4		-0.0094	0.198	-0.0047	0.558	-0.0084	0.292	-0.0086	0.284
EO		-0.0037	0.277	-0.0037	0.295	-0.0036	0.296	-0.0036	0.296
LEV		0.0027	0.775	0.0094	0.315	0.0027	0.777	0.0022	0.820
ADJ_ROA		-0.0106	0.742	0.0493	0.098*	-0.0097	0.762	-0.0116	0.719
RESOURCES		0.1549	0.000***			0.1412	0.000***	0.1442	0.000***
GOVERNANCE		-0.0001	0.374			-0.0001	0.278	-0.0001	0.319
RD_INT		-0.0281	0.549			-0.0150	0.753	-0.0229	0.628
AD_IND_INT		0.0095	0.397			0.0076	0.498	0.0077	0.492
FIRM_AGE		-0.0117	0.000***			-0.0126	0.000***	-0.0126	0.000***
INVPRO				0.0031	0.325	0.0010	0.748	0.0006	0.838
INVPRO*CULT				-0.0019	0.559	0.0002	0.942	0.0006	0.853
_cons		0.1255	0.000***	0.0316	0.658	0.0902	0.226	0.1141	0.114
R-squared		0.0776		0.0270		0.0861		0.0846	
Adj R-squared		0.0665		0.0183		0.0713		0.0708	
No of obs.		1,011		1,016		1,011		1,011	

***, **, *** = Significant at 0.10, 0.05 and 0.01 level**

LEGEND: DA_ABS = absolute value of discretionary accruals; CSR = Corporate Social Responsibility ASSET4 score; CULT = cultural dimension, 1 if masculine, 0 if feminine; CULT*CSR = interaction effect between culture and CSR, SIZE = firm size, logarithm of market value of equity; MB = firm's growth opportunities, price/book value per share; BIG4 = firm's type of auditor, 1 if BIG4 auditor, 0 otherwise; EO = equity offerings, 1 if yes, 0 if no; LEV = financial leverage, total debt/total assets; ADJ_ROA = industry adjusted return on assets, income before extraordinary items/lagged total assets; RESOURCES = financial resources, cash flow/total assets; GOVERNANCE = Governance ASSET4 score; RD_INT = research & development intensity, R&D expenses/net sales; AD_IND_INT = advertising intensity of the industry, advertising expenses/net sales; FIRM_AGE = firm's age, logarithm of 1+number of years since the firm's IPO; INVPRO = investor protection, average of the five legal variables from la Porta et al. (1998); INVPRO*CULT = interaction effect between investor protection and culture.

Table 6A shows a positive coefficient for CSR within the testing of hypotheses 1A and 1B instead of negative as displayed in table 5. However, the coefficient is insignificant, thus this does not indicate that the results are not robust. Within hypothesis 2, the coefficient for culture is positive, in line with table 5. However, the coefficient for culture within table 6A is not significant. Therefore, the results of hypotheses 2 with total earnings management are not robust to the results on accrual-based earnings management. In line with table 5, the coefficients for CSR within testing of hypothesis 3A and 3B are positive but insignificant. The coefficient for culture within hypothesis 3A is positive but insignificant, while this coefficient was significant in table 5. In contrast to table 5, the coefficients for CULT*CSR in hypothesis 3A and culture within hypothesis 3B are negative and insignificant. Therefore, the results of the analysis on total earnings management are not robust to the results of the analysis on accrual-based earnings management for hypothesis 2, 3A and 3B. Nevertheless, the adjusted R-squared for every hypothesis within this analysis is significantly lower than the adjusted R-squared values in table 6A. Therefore, this analysis appears to have less explanatory power.

Real Earnings Management

Table 6B provides the results of the analyses on real earnings management.

Table 6B. Robustness Test: Real Earnings Management

Test for hypotheses 1A + 1B: $\text{COMBINED\_REM}_{it} = \alpha_0 + \alpha_1 \text{CSR}_{it} + \alpha_2 \text{SIZE}_{it-1} + \alpha_3 \text{MB}_{it-1} + \alpha_4 \text{BIG4}_{it} + \alpha_5 \text{EO}_{it} + \alpha_6 \text{LEV}_{it-1} + \alpha_7 \text{ADJ\_ROA}_{it-1} + \alpha_8 \text{RESOURCES}_{it} + \alpha_9 \text{GOVERNANCE}_{it} + \alpha_{10} \text{RD\_INT}_{it} + \alpha_{11} \text{AD\_IND\_INT}_{it} + \alpha_{12} \text{FIRM\_AGE}_{it} + \varepsilon_{it}$

Test for hypothesis 2: $\text{COMBINED\_REM}_{it} = \alpha_0 + \alpha_1 \text{CULT}_{it} + \alpha_2 \text{SIZE}_{it-1} + \alpha_3 \text{MB}_{it-1} + \alpha_4 \text{BIG4}_{it} + \alpha_5 \text{EO}_{it} + \alpha_6 \text{LEV}_{it-1} + \alpha_7 \text{ADJ\_ROA}_{it-1} + \alpha_8 \text{INVPRO}_{it} + \alpha_9 \text{INVPRO}_{it} * \text{CULT}_{it} + \varepsilon_{it}$

Test for hypothesis 3A: $\text{COMBINED\_REM}_{it} = \alpha_0 + \alpha_1 \text{CSR}_{it} + \alpha_2 \text{CULT}_{it} + \alpha_3 \text{CULT}_{it} * \text{CSR}_{it} + \alpha_4 \text{SIZE}_{it-1} + \alpha_5 \text{MB}_{it-1} + \alpha_6 \text{BIG4}_{it} + \alpha_7 \text{EO}_{it} + \alpha_8 \text{LEV}_{it-1} + \alpha_9 \text{ADJ\_ROA}_{it-1} + \alpha_{10} \text{RESOURCES}_{it} + \alpha_{11} \text{GOVERNANCE}_{it} + \alpha_{12} \text{RD\_INT}_{it} + \alpha_{13} \text{AD\_IND\_INT}_{it} + \alpha_{14} \text{FIRM\_AGE}_{it} + \alpha_{15} \text{INVPRO}_{it} + \alpha_{16} \text{INVPRO}_{it} * \text{CULT}_{it} + \varepsilon_{it}$

Test for hypothesis 3B: $\text{COMBINED\_REM}_{it} = \alpha_0 + \alpha_1 \text{CSR}_{it} + \alpha_2 \text{CULT}_{it} + \alpha_3 \text{SIZE}_{it-1} + \alpha_4 \text{MB}_{it-1} + \alpha_5 \text{BIG4}_{it} + \alpha_6 \text{EO}_{it} + \alpha_7 \text{LEV}_{it-1} + \alpha_8 \text{ADJ\_ROA}_{it-1} + \alpha_9 \text{RESOURCES}_{it} + \alpha_{10} \text{GOVERNANCE}_{it} + \alpha_{11} \text{RD\_INT}_{it} + \alpha_{12} \text{AD\_IND\_INT}_{it} + \alpha_{13} \text{FIRM\_AGE}_{it} + \alpha_{14} \text{INVPRO}_{it} + \alpha_{15} \text{INVPRO}_{it} * \text{CULT}_{it} + \varepsilon_{it}$

Table 6B. Robustness Test: Real Earnings Management, Continued

	PRED SIGN	HYPOTHESIS 1A + 1B		HYPOTHESIS 2		HYPOTHESIS 3A		HYPOTHESIS 3b	
COMBINED_ REM	**H1A**	**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**
CSR	+/-	-0.0007	0.283			-0.0004	0.735	-0.0006	0.313
CULT (1-sided)	+			1.0383	0.040**	0.7044	0.039**	0.6826	0.036**
CULT*CSR	+					-0.0003	0.862		
SIZE		-0.0195	0.005***	-0.0245	0.034**	-0.0243	0.001***	-0.0244	0.001***
MB		-0.0139	0.000***	-0.0209	0.000***	-0.0133	0.000***	-0.0133	0.000***
BIG4		-0.0227	0.577	-0.0849	0.226	0.0307	0.492	0.0306	0.493
EO		0.0034	0.861	-0.0181	0.554	0.0142	0.464	0.0142	0.464
LEV		0.0273	0.610	-0.1594	0.048**	0.0255	0.633	0.0251	0.638
ADJ_ROA		0.2146	0.235	-0.9397	0.000***	0.2246	0.214	0.2232	0.216
RESOURCES		-3.2411	0.000***			-3.2280	0.000***	-3.2257	0.000***
GOVERNANCE		0.0009	0.054*			0.0010	0.033**	0.0011	0.032**
RD_INT		-1.0362	0.000***			-1.0439	0.000***	-1.0500	0.000***
AD_IND_INT		-1.8957	0.000***			-1.8986	0.000***	-1.8985	0.000***
FIRM_AGE		0.0452	0.003***			0.0504	0.001***	0.0504	0.001***
INVPRO				0.0380	0.168	0.0309	0.082*	0.0306	0.083*
INVPRO*CULT				-0.0486	0.084*	-0.0352	0.051*	-0.0349	0.052*
_cons		0.4424	0.000***	-0.3590	0.560	-0.2241	0.592	-0.2058	0.611
R-squared		0.6231		0.0743		0.6267		0.6267	
Adj R-squared		0.6186		0.0660		0.6207		0.6211	
Obs		1,011		1,016		1,011		1,011	

***, **, *** = Significant at 0.10, 0.05 and 0.01 level**

LEGEND: COMBINED_REM total amount of real earnings management, abnormal discretionary expenses + abnormal production costs + abnormal cash flow from operations; CSR = Corporate Social Responsibility ASSET4 score; CULT = cultural dimension, 1 if masculine, 0 if feminine; CULT*CSR = interaction effect between culture and CSR, SIZE = firm size, logarithm of market value of equity; MB = firm's growth opportunities, price/book value per share; BIG4 = firm's type of auditor, 1 if BIG4 auditor, 0 otherwise; EO = equity offerings, 1 if yes, 0 if no; LEV = financial leverage, total debt/total assets; ADJ_ROA = industry adjusted return on assets, income before extraordinary items/lagged total assets; RESOURCES = financial resources, cash flow/total assets; GOVERNANCE = Governance ASSET4 score; RD_INT = research & development intensity, R&D expenses/net sales; AD_IND_INT = advertising intensity of the industry, advertising expenses/net sales; FIRM_AGE = firm's age, logarithm of 1+number of years since the firm's IPO; INVPRO = investor protection, average of the five legal variables from la Porta et al. (1998); INVPRO*CULT = interaction effect between investor protection and culture.

The results of this analysis are consistent with the results within table 5 for all of the hypotheses. The table shows that all of the coefficients point into the same direction as exposed by table 5 and the significance for the coefficients is also consistent with the levels of significance displayed in table 5. This means that the results of the analysis that takes total earnings management as the dependent variable is robust to the results of the analysis that takes real earnings management as the dependent variable.

When comparing table 6A and 6B, it can be concluded that the influence of culture on real earnings management can be proven, while the influence of culture on accrual-based earnings management cannot be verified. This might be explained because of the fact that real earnings management has a lower risk of detection. Managers within masculine countries might prefer to

engage in real earnings management, because this enables them to not only achieve a certain level of earnings, it also enables them to maintain this certain level and to protect their reputation, since their practices are less likely to be discovered (Braam et al. 2015). Besides that, it was already predicted that firms within masculine countries use CSR in order to mask earnings management (Gray 1988). If these managers choose for real earnings management, it is not even necessary to mask their earnings management, since it is already harder to detect (Cohen & Zarowin, 2010). Besides that, real earnings management can be seen as the aggressive form, since it influences the actual cash flows within a firm. This fits within the notion that customers are more likely to accept aggressiveness within masculine cultures and thus real earnings management is preferred above accrual-based earnings management in these countries (Nabar & Boonlert-U-Thai 2007). Finally, because managers within masculine countries are very driven to show achievement and success, it is more likely that the least risky form of manipulation is preferred. Real earnings management is less risky than accrual-based earnings management, because these activities cannot be adjusted at or after the end of the reporting period, while accrual-based practices can be adjusted after this period (Cohen & Zarowin, 2010).

In addition to the variance in the relation of culture to real earnings management and the relation of culture to accrual-based earnings management, the influence of CSR cannot be observed on both of the earnings management practices. The results of table 5 are therefore robust to the influence of CSR on both kinds of earnings management.

Accruals Quality

Table 7 provides the results of the analyses on the hypotheses with accruals quality taken as the dependent variable instead of the absolute value of the discretionary accruals.

Table 7. Robustness Test: Accruals Quality

Test for hypotheses 1A + 1B: $AQ_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 RESOURCES_{it} + \alpha_9 GOVERNANCE_{it} + \alpha_{10} RD\_INT_{it} + \alpha_{11} AD\_IND\_INT_{it} + \alpha_{12} FIRM\_AGE_{it} + \varepsilon_{it}$

Test for hypothesis 2: $AQ_{it} = \alpha_0 + \alpha_1 CULT_{it} + \alpha_2 SIZE_{it-1} + \alpha_3 MB_{it-1} + \alpha_4 BIG4_{it} + \alpha_5 EO_{it} + \alpha_6 LEV_{it-1} + \alpha_7 ADJ\_ROA_{it-1} + \alpha_8 INVPRO_{it} + \alpha_9 INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

Test for hypothesis 3A: $AQ_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 CULT_{it} * CSR_{it} + \alpha_4 SIZE_{it-1} + \alpha_5 MB_{it-1} + \alpha_6 BIG4_{it} + \alpha_7 EO_{it} + \alpha_8 LEV_{it-1} + \alpha_9 ADJ\_ROA_{it-1} + \alpha_{10} RESOURCES_{it} + \alpha_{11} GOVERNANCE_{it} + \alpha_{12} RD\_INT_{it} + \alpha_{13} AD\_IND\_INT_{it} + \alpha_{14} FIRM\_AGE_{it} + \alpha_{15} INVPRO_{it} + \alpha_{16} INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

Test for hypothesis 3B: $AQ_{it} = \alpha_0 + \alpha_1 CSR_{it} + \alpha_2 CULT_{it} + \alpha_3 SIZE_{it-1} + \alpha_4 MB_{it-1} + \alpha_5 BIG4_{it} + \alpha_6 EO_{it} + \alpha_7 LEV_{it-1} + \alpha_8 ADJ\_ROA_{it-1} + \alpha_9 RESOURCES_{it} + \alpha_{10} GOVERNANCE_{it} + \alpha_{11} RD\_INT_{it} + \alpha_{12} AD\_IND\_INT_{it} + \alpha_{13} FIRM\_AGE_{it} + \alpha_{14} INVPRO_{it} + \alpha_{15} INVPRO_{it} * CULT_{it} + \varepsilon_{it}$

Table 7. Robustness Test: Accruals Quality, Continued

	PRED SIGN	HYPOTHESIS 1A + 1B		HYPOTHESIS 2		HYPOTHESIS 3A		HYPOTHESIS 3b	
AQ	**H1A**	**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**
CSR	+/-	0.0000	0.978			-0.0002	0.593	0.0000	0.979
CULT (1-sided)	+			0.0455	0.295	0.0424	0.321	0.0623	0.233
CULT*CSR	+					0.0002	0.531		
SIZE		0.0010	0.538	-0.0002	0.900	0.0007	0.697	0.0007	0.660
MB		0.0000	0.928	-0.0002	0.719	0.0001	0.877	0.0001	0.890
BIG4		0.0091	0.301	0.0163	0.095*	0.0114	0.247	0.0115	0.242
EO		-0.0092	0.034**	-0.0081	0.066*	-0.0088	0.048**	-0.0089	0.046**
LEV		-0.0180	0.163	-0.0193	0.115	-0.0181	0.163	-0.0175	0.174
ADJ_ROA		0.0427	0.312	-0.0285	0.450	0.0416	0.327	0.0439	0.300
RESOURCES		-0.1399	0.000***			-0.1344	0.000***	-0.1374	0.000
GOVERNANCE		-0.0001	0.222			-0.0001	0.249	-0.0001	0.223
RD_INT		-0.0726	0.243			-0.0777	0.216	-0.0749	0.232
AD_IND_INT		0.0282	0.049**			0.0296	0.041**	0.0296	0.041**
FIRM_AGE		-0.0063	0.071*			-0.0057	0.111	-0.0057	0.111
INVPRO				0.0013	0.747	0.0021	0.600	0.0024	0.542
INVPRO*CULT				-0.0022	0.588	-0.0026	0.525	-0.0029	0.472
_cons		0.0682	0.003***	-0.0004	0.996	0.0306	0.749	0.01370	0.881
R-squared		0.0354		0.0135		0.0368		0.0364	
Adj R-squared		0.0222		0.0035		0.0192		0.0198	
Obs		889		894		889		889	

***, **, *** = Significant at 0.10, 0.05 and 0.01 level**

LEGEND: AQ = Accruals Quality, standard deviation of residuals of a regression on change in working capital; CSR = Corporate Social Responsibility ASSET4 score; CULT = cultural dimension, 1 if masculine, 0 if feminine; CULT*CSR = interaction effect between culture and CSR, SIZE = firm size, logarithm of market value of equity; MB = firm's growth opportunities, price/book value per share; BIG4 = firm's type of auditor, 1 if BIG4 auditor, 0 otherwise; EO = equity offerings, 1 if yes, 0 if no; LEV = financial leverage, total debt/total assets; ADJ_ROA = industry adjusted return on assets, income before extraordinary items/lagged total assets; RESOURCES = financial resources, cash flow/total assets; GOVERNANCE = Governance ASSET4 score; RD_INT = research & development intensity, R&D expenses/net sales; AD_IND_INT = advertising intensity of the industry, advertising expenses/net sales; FIRM_AGE = firm's age, logarithm of 1+number of years since the firm's IPO; INVPRO = investor protection, average of the five legal variables from la Porta et al. (1998); INVPRO*CULT = interaction effect between investor protection and culture.

Table 7 displays that the variables of interest show no significance for the testing of all of the hypotheses on accruals quality. The adjusted R-squared values are low, which means that these analyses barely have explanatory power in explaining accruals quality. Since accruals quality is a proxy for discretionary accruals, table 6A should be compared to table 7. The directions of the coefficients of the variables of interest are consistent within table 6A and table 7 for every hypothesis. Besides that, the coefficients for every variable of interest for all of the hypotheses within table 7 are insignificant, which is also coherent with table 6A. All of the analyses within table 7 and table 6A have low adjusted R-squared values. The results of table 6A are therefore robust to the results within table 7.

CSR Dummy

The following table provides the results of the analyses on total earnings management with CSR transformed into a dummy variable. The CSR median score is calculated for every year. The

dummy for CSR is 1 if the CSR score for a firm is higher than or equal to the year-specific median, and 0 if the CSR score is lower than the year-specific median.

Table 8. Robustness Test: CSR Dummy

Test for hypotheses 1A + 1B: $\text{TOT\_EM}_{it} = \alpha_0 + \alpha_1 \text{CSR\_DUMMY}_{it} + \alpha_2 \text{SIZE}_{it-1} + \alpha_3 \text{MB}_{it-1} + \alpha_4 \text{BIG4}_{it} + \alpha_5 \text{EO}_{it} + \alpha_6 \text{LEV}_{it-1} + \alpha_7 \text{ADJ\_ROA}_{it-1} + \alpha_8 \text{RESOURCES}_{it} + \alpha_9 \text{GOVERNANCE}_{it} + \alpha_{10} \text{RD\_INT}_{it} + \alpha_{11} \text{AD\_IND\_INT}_{it} + \alpha_{12} \text{FIRM\_AGE}_{it} + \varepsilon_{it}$

Test for hypothesis 2: $\text{TOT\_EM}_{it} = \alpha_0 + \alpha_1 \text{CULT}_{it} + \alpha_2 \text{SIZE}_{it-1} + \alpha_3 \text{MB}_{it-1} + \alpha_4 \text{BIG4}_{it} + \alpha_5 \text{EO}_{it} + \alpha_6 \text{LEV}_{it-1} + \alpha_7 \text{ADJ\_ROA}_{it-1} + \alpha_8 \text{INVPRO}_{it} + \alpha_9 \text{INVPRO}_{it} * \text{CULT}_{it} + \varepsilon_{it}$

Test for hypothesis 3A: $\text{TOT\_EM}_{it} = \alpha_0 + \alpha_1 \text{CSR\_DUMMY}_{it} + \alpha_2 \text{CULT}_{it} + \alpha_3 \text{CULT}_{it} * \text{CSR}_{it} + \alpha_4 \text{SIZE}_{it-1} + \alpha_5 \text{MB}_{it-1} + \alpha_6 \text{BIG4}_{it} + \alpha_7 \text{EO}_{it} + \alpha_8 \text{LEV}_{it-1} + \alpha_9 \text{ADJ\_ROA}_{it-1} + \alpha_{10} \text{RESOURCES}_{it} + \alpha_{11} \text{GOVERNANCE}_{it} + \alpha_{12} \text{RD\_INT}_{it} + \alpha_{13} \text{AD\_IND\_INT}_{it} + \alpha_{14} \text{FIRM\_AGE}_{it} + \alpha_{15} \text{INVPRO}_{it} + \alpha_{16} \text{INVPRO}_{it} * \text{CULT}_{it} + \varepsilon_{it}$

Test for hypothesis 3B: $\text{TOT\_EM}_{it} = \alpha_0 + \alpha_1 \text{CSR\_DUMMY}_{it} + \alpha_2 \text{CULT}_{it} + \alpha_3 \text{SIZE}_{it-1} + \alpha_4 \text{MB}_{it-1} + \alpha_5 \text{BIG4}_{it} + \alpha_6 \text{EO}_{it} + \alpha_7 \text{LEV}_{it-1} + \alpha_8 \text{ADJ\_ROA}_{it-1} + \alpha_9 \text{RESOURCES}_{it} + \alpha_{10} \text{GOVERNANCE}_{it} + \alpha_{11} \text{RD\_INT}_{it} + \alpha_{12} \text{AD\_IND\_INT}_{it} + \alpha_{13} \text{FIRM\_AGE}_{it} + \alpha_{14} \text{INVPRO}_{it} + \alpha_{15} \text{INVPRO}_{it} * \text{CULT}_{it} + \varepsilon_{it}$

	PRED SIGN	HYPOTHESES 1A + 1B		HYPOTHESIS 2		HYPOTHESIS 3A		HYPOTHESIS 3b	
TOT_EM		**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**	**Coef.**	**P**
CSR_DUMMY	+/-	-0.0066	0.729			0.0130	0.636	-0.0059	0.757
CULT (1-sided)	+			1.0718	0.035**	0.7600	0.030**	0.6704	0.044**
CULT*CSR	+					-0.0010	0.340		
SIZE		-0.0238	0.001***	-0.0283	0.015**	-0.0276	0.000***	-0.0280	0.000***
MB		-0.0150	0.000***	-0.0216	0.000***	-0.0144	0.000***	-0.0144	0.000***
BIG4		-0.0309	0.464	-0.0896	0.201	0.0228	0.622	0.0235	0.612
EO		-0.0002	0.990	-0.0218	0.476	0.0104	0.607	0.0107	0.594
LEV		0.0306	0.582	-0.1500	0.063*	0.0297	0.592	0.0277	0.616
ADJ_ROA		0.2042	0.276	-0.8904	0.001***	0.2198	0.240	0.2117	0.258
RESOURCES		-3.0805	0.000***			-3.0900	0.000***	-3.0776	0.000***
GOVERNANCE		0.0008	0.092*			0.0009	0.064	0.0010	0.060*
RD_INT		-1.0628	0.000***			-1.0395	0.000***	-1.0706	0.000***
AD_IND_INT		-1.8873	0.000***			-1.8907	0.000***	-1.8918	0.000***
FIRM_AGE		0.0331	0.037**			0.0379	0.018**	0.0374	0.020**
INVPRO				0.0411	0.136	0.0327	0.075*	0.0316	0.084*
INVPRO*CULT				-0.0505	0.073*	-0.0358	0.055*	-0.0347	0.063*
_cons		0.5362	0.000***	-0.3274	0.596	-0.1656	0.692	-0.1287	0.757
R-squared		0.5974		0.0758		0.6016		0.6012	
Adj R-squared		0.5926		0.0675		0.5952		0.5952	
No of obs.		1,011		1,016		1,011		1,011	

***, **, *** = Significant at 0.10, 0.05 and 0.01 level**

LEGEND: TOT_EM = total amount of earnings management (real + accrual based); CSR_DUMMY = dummy variable for the Corporate Social Responsibility ASSET4 score, 1 if higher than median in a specific year, 0 if lower than median in a specific year; CULT = cultural dimension, 1 if masculine, 0 if feminine; CULT*CSR = interaction effect between culture and CSR, SIZE = firm size, logarithm of market value of equity; MB = firm's growth opportunities, price/book value per share; BIG4 = firm's type of auditor, 1 if BIG4 auditor, 0 otherwise; EO = equity offerings, 1 if yes, 0 if no; LEV = financial leverage, total debt/total assets; ADJ_ROA = industry adjusted return on assets, income before extraordinary items/lagged total assets; RESOURCES = financial resources, cash flow/total assets; GOVERNANCE = Governance ASSET4 score; RD_INT = research & development intensity, R&D expenses/net sales; AD_IND_INT = advertising intensity of the industry, advertising expenses/net sales; FIRM_AGE = firm's age, logarithm of 1+number of years since the firm's IPO; INVPRO = investor protection, average of the five legal variables from la Porta et al. (1998); INVPRO*CULT = interaction effect between investor protection and culture.

The directions of the coefficients of the variables of interest for all of the hypotheses within table 8 correspond to the directions of the coefficients of the variables of interest within table 5. Consistent with table 5, only the coefficients for culture are significant. Therefore, the results of table 5 are robust to the results of table 8.

4.5 Summary of the Results

The previous sections show that merely hypothesis 2 can be confirmed; within masculine countries, firms are more likely to engage in earnings management than within feminine countries. However, this relation is only robust for the analysis of real earnings management and not for the analysis of accrual-based earnings management or of accruals quality. It can therefore be argued that there is only a significant relation between culture and real earnings management since accruals quality is a proxy for accrual-based earnings management. The relation between CSR and total earnings management is not significant; this outcome is robust to testing for only accrual-based earnings management (*DA_ABS* and *AQ*), testing for only real earnings management and for the inclusion of CSR as a dummy variable. A moderation or a mediation effect between CSR and culture on total earnings management cannot be found either; these results are also robust to the different additional tests. The explanation for this insignificance might be found in the sample, in which opportunistic firms and transparent firms are not distinguished. Finally, the results of the analysis on the discretionary accruals are robust to the analysis on accruals quality; there is no significant relation between either CSR or culture on accrual-based earnings management within these two different analyses.

5. Conclusion and Discussion

Previous studies have already performed separate analyses on the relationship between CSR and earnings management and the relationship between culture and earnings management. Because this has not yet led to consistency within the existing literature, this paper combines these previous analyses in an attempt to reach uniformity. On the one hand, lower levels of earnings management are expected when firms are corporate socially responsible; on the other hand, more earnings management is estimated amongst corporate socially responsible firms due to opportunistic behavior. Masculinity, the cultural dimension that strives for achievement and success, is expected to induce more engagement in earnings management compared to femininity, the cultural dimension focused on caring. Merging these expectations leads to either a moderating or a mediating effect of CSR and culture on earnings management. A moderating effect can be expected because corporate socially responsible firms within feminine countries are less likely to engage in earnings management compared to CSR firms within masculine countries. A mediating effect can be expected because it is estimated that firms within feminine countries give more importance to CSR and are hence less expected to engage in earnings management compared to firms in masculine countries.

To test whether these hypotheses can be confirmed, regression analyses among eight European countries have been performed. The findings support the hypothesis that firms within masculine countries are indeed more likely to engage in earnings management than firms within feminine countries. Nevertheless, this result holds only for real earnings management and not for accrual-based earnings management, measured as either the amount of discretionary accruals or as accruals quality. This can be explained by the fact that real earnings management is less risky, harder to detect and fits within the masculine dimension since it is more aggressive compared to accrual-based earnings management. Besides that, the findings regarding CSR are insignificant and a moderating, mediating or regular relation between CSR, culture and earnings management cannot be derived from the regressions. These findings hold for the additional tests of making a distinction between real and accrual-based earnings management, of controlling for accruals quality and of using CSR as a dummy variable.

This paper contributes to the existing literature by creating the idea of a combined influence of CSR and culture on earnings management. Even though there is no significant mediating or moderating effect to be found within this study, it can encourage further research built upon this idea. Other research could perhaps focus on different countries, on adding countries and therefore creating a larger sample or on focusing on other cultural dimensions.

Besides that, the results show that real earnings management is more likely to occur within masculine countries. This can be valuable for auditors within masculine countries since these auditors might need to examine the likelihood of a firm's engagement in real earnings management more thoroughly when conducting the audit. Especially because real earnings management is known to be harder to detect. Investors can take this into account when they make decisions regarding whether investing in a firm within a masculine or a feminine country. Policy makers and legislators within masculine countries might want to sharpen the legislation regarding auditors' task in tracing real earnings management and regarding the sanctions if the engagement of a firm in real earnings management is detected.

Besides the contributions, there are also several limitations to this study. First of all, this research does not distinguish between firms within the sample that use CSR in an opportunistic manner and firms within the sample that use CSR to be more transparent. Since this might be the reason for the insignificance within this study and why the results cannot support the hypotheses, elaboration on which firms are opportunistic and which firms are transparent is needed. Moreover, the sample is divided disproportional among feminine and masculine countries; the overhand of the firm-year observations stems from masculine countries. A more proportionate sample could lead to different outcomes and might be the reason why the results do not keep up with the hypothesis. Furthermore, the sample is relatively small compared to prior literature. For example, the number of firm-year observations used in the study of Kim et al. (2012) is more than 10 times larger than the number of firm-year observations within this study. Therefore, the sample could be expanded as this might create a better fit for the model and perhaps results that do back the hypotheses.

Besides these limitations, several suggestions for improvements can be taken into account for further researchers. First of all, the awareness of the importance of corporate social responsibility

is relatively new and developing at a fast pace. Therefore, it could prove to be fruitful to perform a similar research in another timeframe. Besides that, this study focuses on listed companies and does not include private firms. Due to some control variables, such as whether there have been equity offerings in a certain year or the level of investor protection, the model within this study is not entirely a good fit for a study among private companies. However, it would be interesting to see if the cultural dimension within a country does play a role in the engagement in real earnings management on the private level as well. Performing a comparable study on the private level might even find evidence for the existence of a mediating or a moderating effect amongst culture, CSR and earnings management.

In all, it can be concluded that this study has generated several new queries and has not managed to create a consistent theory on the relation between CSR, culture and earnings management. Hopefully, this study encourages further research in finding uniformity.

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