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TESTING THE RELATIONSHIP BETWEEN EARNIGNS MANAGEMENT AND CORPORATE SOCIAL RESPONSIBILITY: EMPIRICAL APPROACH IN FINNISH CONTEXT

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ABSTRACT

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This master thesis examines the relationship between corporate social responsibility (CSR) and earnings management (EM) in the context of Finnish listed companies. Both CSR and EM are important topics integrally related to the modern corporate environment. Examination of the association between these subject areas has been scholars' object of interest for over the decade. Nevertheless, the prior research has failed to reach consensus regarding the nature of this relationship. This thesis aimed to provide additional empirical evidence related to this controversy and thus aimed to attempt to contribute this dispute's resolution. Namely, this study has intended to examine how companies' CSR activity influences the level of EM using three different EM proxies.

This study is a quantitative research conducted using ordinary least squared regression. Financial data for construction of EM proxies has been obtained from DataStream database, whereas the data used as measure of companies' CSR performance has been collected from Thomson Reuters Eikon database. Using a sample consisting of Finnish listed companies for the fiscal years 2013 until 2018, this study has not found statistically significant relationship between earnings management and corporate social responsibility.

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1 Introduction

This chapter briefly outlines the topic of this master thesis, i.e., relationship between earnings management and corporate social responsibility, presents the research questions and methodology necessary for the conduction of empirical research, as well as introduces the structure of this work.

1.1 Background of the research subject

In the first part of this section the sub-topics of this master thesis (earnings management and corporate social responsibility) are introduced and discussed on the individual level. In turn, the second part of this section familiarizes the reader with the issue related to relationship between earnings management and corporate social responsibility.

1.1.1 Earnings management

According to International Financial Reporting Standards (IFRS) the purpose of financial reporting is to provide a reader with an insight regarding reporting entity's underlying economic position as well as change in position. Framework states that entities' reported information should aid stakeholders in financial decision-making. IFRS stresses that disclosed information can be useful for such decisions, if it possess such qualities as ''relevance'' and ''faithful representation''. Financial information can be classified as relevant, if it can significantly influence the decisions of its users either via its predictive or confirmatory value. In turn, faithfully represented financial information is characterized by its completeness, neutrality and error lessness. (Gaynor et al., 2016)

Thus, one of the main roles of accounting is to provide an efficient communication between company's management and its external stakeholders. For example, efficient communication helps stakeholders to distinguish between well performing and poor performing companies and consequently to allocate scarce resources in a profitable way. (Chi, 2011) As a rule, executive has the best knowledge about company's situation and hence he/she can choose the most suitable reporting techniques, disclosures, and estimates, which correspond enterprise's business economics (Healy, 1999). Thus, manager judgment's use in the production of financial reporting can be considered as an aspect that has a positive impact on the quality of company's accounting information (Jung, 2019). However, at the same time permission of judgment's use contributes to the creation of a favorable environment for manager's opportunistic behavior and such of its manifestations as earnings management (Buertey, 2019).

Normally earnings management appears, when managers make income looking greater or smaller using discretion in calculation of earnings, whilst not violating the underlying accounting principles (Prior, 2008). According to concise definition, earnings management (EM) can be referred to as financial reporting's manipulation in order to reach certain objectives (El Diri, 2018). Earnings management is generally divided into two categories: accrual-based earnings management (AEM) and real earnings management (REM). By its nature earnings management activities deteriorate the quality of reported earnings by covering up the actual economic circumstances. (Hong, 2011) EM practices can cause various negative consequences to company's shareholders, lenders, and employees. Destruction of company's reputation capital and loss of stakeholder support are one of the most extensive and detrimental consequences for companies, which get incriminated in the use of use of earnings management. (Prior, 2008)

However, in this relation is worth to acknowledge that earnings management is not always a negative matter. For instance, several academic works state that EM can be beneficial to the company's stakeholders and public as it can potentially enhances the information value of earnings (Healy & Palepu, 1993; Jiraporn, 2008;

Pereira, 2017). For example, managers discretion over earnings may improve earnings' ability to reflect fundamental value. (Jiraporn, 2008)

1.1.2 Corporate social responsibility

Pre-financial crisis scandals (e.g., Tyco, WordCom, Enron) and the events of the 2008 global financial crisis once more placed EM into the spotlight and strengthened public awareness about this issue. This in turn has led to the increased scrutiny and uncertainty among market participants. (Scholtens, 2013; Liu, 2017) Partially as a response to these circumstances, a growing number of companies have engaged into corporate social responsibility (CSR) activities (Cuervo-Cazurra, 2018).

According to conventional definition an organization being engaged in CSR produces profit, acts ethically, conforms to legislation and is a well-behaved corporate citizen (Hong, 2011). Practically, CSR is concerned with complicated matters such as relationships with customers, vendors and local communities, workforce's wellbeing, and HR-management. According to modern dominant interpretation corporate social responsibility means that organizations deliberately incorporate environmental and social considerations in their operations and cooperation with stakeholders. (Branco, 2006) Multiple studies have indicated that CSR practices may have various positive impacts on company's performance (Fombrun et al. 2000; Greening & Turban, 2000; Bear et al. 2010). For example, among the possible benefits of CSR are lower capital constraints due to improvements in transparency and reputation and better stakeholder engagement, which may result in reduced contracting costs. (Cheng, 2014)

1.1.3 Relationship between EM and CSR

Corporate social responsibility is often discussed in conjunction with earnings management. Numerous studies aimed to test the relationship between CSR and earnings management practices, but subject's research failed to reach the universal conclusion as many of the findings seem to be controversial, i.e., one set of scholars advocate that the indicated relationship is positive (Prior, 2008; Barton et al. 2010), whereas other groups of researchers insist that it is negative (Kim et al., 2012; Lui, 2017). Positive relationship between earnings management and CSR is justified by the idea that many companies tend to tactically use CSR to counteract the negative influence of own EM practices or to distract public attention from such practices (Moratis, 2018). On the other hand, the advocates of negative correlation between CSR and EM ground their inferences on the ethical theory of the firm as per which ethical firms incline to act ethically towards its stakeholders (Kim et al. 2012). Figure 1. schematically presents the theoretical background relevant for this master thesis.

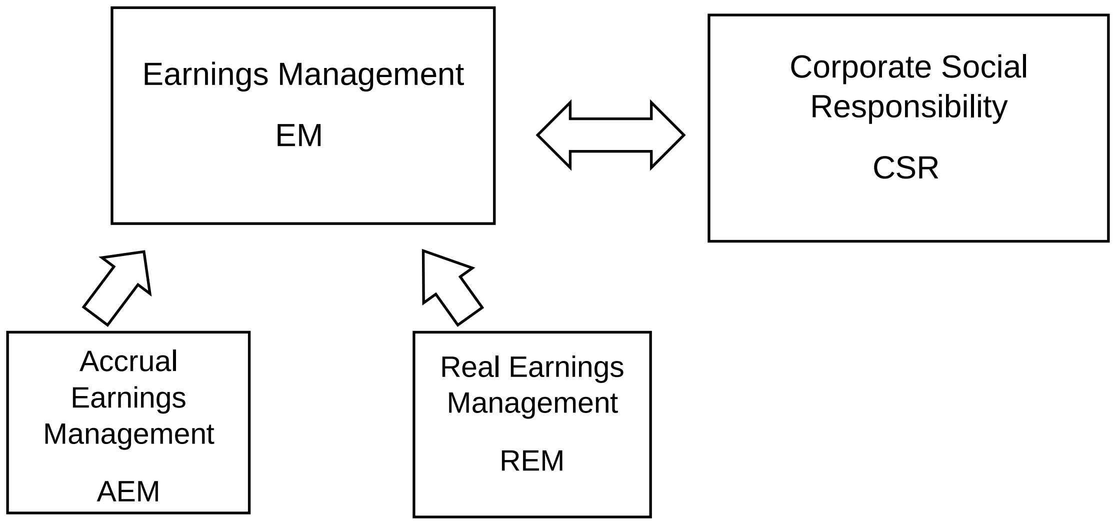

Figure 1. The relationship between Earnings Management and Corporate Social Responsibility

1.2 Research question, objectives, and limitations

Considering that empirical results concerning the nature of the relationship between EM and CSR are debatable, it is justified to continue studying the given subject matter to attempt to gain a better insight. This study efforts to shed more light on the outlined controversy and contribute to the literature by providing additional empirical evidence. Accordingly, the main research question of this master thesis is:

What is the nature of relationship between EM and CSR?

Until recently the greatest share of the studies concerning the relationship between earnings management and corporate social responsibility emphasized accrual earnings management and used it as a surrogate of corporate EM activities (Jones, 1991; Healy, 1999; Kothari et al. 2005; Prior, 2008). On the contrary some researchers have attempted to study the relationship between CSR and EM concentrating on alternative earnings management proxies. For example, Scholtens (2013) decided to replace traditional EM proxies by earnings smoothing and earnings aggressiveness. However, the more recent research has indicated that managers tend to use REM and AEM as a replacement for each other and as follows concentration on only one of these EM types would not produce as comprehensive inferences. (Zang, 2012; Jordaan, 2018) Therefore this master thesis will utilize both real earnings management, accrual earnings management and combined EM measure as a proxies of corporate earnings management practices and will aim to contribute the literature comparing the influence of EM types upon CSR practices.

In order to aid this objective, the following sub-question will be utilized:

Does the type of earning management has an influence upon the nature of the relationship between EM and CSR?

Thus, with support of outlined research questions this thesis aims to explore how corporate social responsibility influences the earnings management practices by utilizing a sample of non-financial Nasdaq OMX Helsinki companies during the period of 2015-2018.

It is fair to admit that the most of the subject's prior research has concentrated on USA. This study, as an alternative, intends to replicate the earlier conducted research in the context of Finnish financial market. It is important to conduct a wide variety of studies in different institutional settings and thus enhance the understanding of the intersection under consideration. Otherwise, the empirical results' credibility tends to be weakened by country-specificness. Thus, it can be argued that this master thesis may promote the generalizability of the results in the field of research comparing the relationship between earnings management and corporate social responsibility.

Finland is a country with a debt dominating financial market and rather thin security market (Sundvik, 2017). In addition, the ownership of the public companies in Finland is rather concentrated. Altogether these factors have contributed to the formation of the environment, where firms are expected to pay a steady stream of dividends to their influential institutional owners. Such situation promotes the incentives for managing earnings upward in case the financial period's unmanaged earnings prove to be below the level required to sustain paying the target dividend. (Kasanen et al. 1996) Another characteristic feature of Finnish setting is a strong book-conformity, which means that taxable income is tied to reported earnings. This in turn often motivates managers to manage earnings downwards to reduce the tax burden. (Sundvik, 2017) However, according to research by Kinnunen et al., (2000) the pursuit for income tax reduction is not always an obstacle for firms to manage earnings cosmetically upwards and thus create a perception of larger profits.

Although the number of studies (Kasanen et al., 1996; Kinnunen et al., 2000; Sundgren, 2007; Sundvik, 2017), has already considered corporate earnings management practices in Finland’s institutional environment, part of them (Kasanen et al., 1996; Kinnunen et al., 2000) were conducted before IFRS adoption and hence had explored EM in drastically different institutional environment, where public firms had to produce reports following Finnish GAAP. Moreover, many of the studies about the use of EM in Finland considers it from the point of view of private, but not public enterprises (Niskanen et al., 2011; Karjalainen, 2013; Sundvik, 2017). In addition, earnings management’s relationship with corporate social responsibility in Finnish context has been little investigated, except of several international studies, such as ones by Chih et al., (2008) and Haw et al., (2012). Also, the use of CSR by Finnish public firms was studied in isolation from EM, for example in paper by Kotonen, (2009). Hence, based on just presented arguments it can be asserted that this master thesis has a potential to fills the research gap in the research field under consideration.

Furthermore, the period chosen for this study, i.e. between years 2015-2018, covers the years with rather stable economic situation and hence present study strives to explore the use of EM, which is not influenced by the financial crisis unlike many of the previous academic works. Financial and insurance companies are excluded from the sample due to their peculiar features and distinct regulations making them unsuitable for comparison with most listed companies (Buertey, 2019).

As was mentioned earlier, this study intends to use combined earnings management measure, real earnings management, and accrual earnings management as a proxy of corporate earnings management practices. In turn, other earnings management techniques such as earnings aggressiveness, earnings shifting, and earnings smoothing are out of this research's scope and will be covered only superficially in the following chapters. This study's practical implication is that it may raise awareness about the current trends in the use of earnings management in Finland and hence aid auditors in the detection of such practices. Additionally, this research can promote the development of corresponding legislation and consequently alleviate the concerns about earnings management's the detrimental effects on the quality of reported earnings.

1.3 Research methodology

This thesis will utilize the quantitative analysis techniques, namely the ordinary least squares regression (OLS). Financial data, which will be used in the calculation of EM variables will be taken from the DataStream database, whereas CSR data will be acquired from Thomson Reuters Eikon database. Before the actual regression analysis several steps will be made in order to prepare the input data, i.e., to develop proxies for AEM and REM. Dechow et al., (1995) model will be used to estimate the level of discretionary accruals that will serve as a proxy for accrual earnings management. In turn, the proxy for real earnings management will be found with the help of model by Dechow et al., (1998).

1.4 Research structure

The remainder of this master thesis is organized as follows. The following chapter defines the concept of earnings management, briefly discusses the theoretical background of this concept, presents the different types of earnings management, and outlines the central findings of the previous research regarding the use of different types of earnings management. In addition, the fore mentioned chapter states the list of possible motivations behind the use of EM. In turn the next chapter presents the topic of corporate social responsibility and proceeds by the discussion of the relationship between EM and CSR. In the next chapter the given master thesis expounds on the research methodology including the discussion of the sample, presentation of descriptive statistics, measurement approaches and the research design. This is followed by the presentation of empirical results. Finally, in the last chapter this master thesis discusses the findings in the light of the existing literature and draws conclusions.

2 Earnings management

This chapter introduces the topic of earnings management by discussion of its definition and demonstration of concept's theoretical background. In addition, this chapter outlines the central motives behind earnings management by the review of the relevant academic research. Finally, the last part of this chapter discusses the earnings management types both separately and in relation to each other touching on the considerations related to their use.

2.1 Definition and background information about earnings management

There is no single definition of earnings management and moreover this concept is often mixed with other notions such as fraud, expectation management and impression management (Dechow, 2000). Therefore, it is important to provide an efficient definition, which would include all the necessary features of the concept under consideration. As was stated earlier, according to simplistic definition EM is financial reporting's manipulation aimed to reach certain objectives. Naturally, the definition of the EM has evolved along the research field's development. (Zang, 2012)

For instance, one of the early influential definitions is by Schipper (1989), according to which EM can be defined as 'purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain (as opposed to merely facilitating the neutral operation of the process)'. Another widely accepted and more detailed definition, which spotlights the possible motivations for EM, is by Healy (1999), and it states that 'earnings management occurs 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'.

In turn, more recent definitions have aimed to convey to the audience the versatile nature of earnings management by outlining the various earnings management approaches, which exist and are employed by managers (El Diri, 2018). For example, the definition by Walker (2013), who states that EM is: ‘The use of managerial discretion over accounting choices, earnings reporting choices, and real economic decisions to influence how underlying economic events are reflected in one or more measures of earnings’.

It is worth mentioning that in the literature are differing views regarding what can be classified as earnings management and what belongs to the extent of EM, i.e., predominant number of scholars hold opinion that only within GAAP activities can be classified as earnings management (Dechow, 2000; Pereira, 2017; Kliestik et al., 2020), while others reckon that accounting fraud is the extreme manifestation of EM (Martin et al. 2002; Badertscher,2011). This study will be conducted in line with the view that earnings management refers to practices, which despite potential ethical concerns lie within legal boundaries.

Similarly, there are differing opinions regarding the attitude towards earnings management. Although majority of the subject’s studies tend to emphasize the negative nature of EM, there are also advocates, which seek to draw public’s attention to certain positive impacts of accounting manipulation practices (Jiraporn, 2008). According to traditional view EM deteriorates the quality of reported financial figures and thus reduces the usefulness of financial reports for external parities’ decision making (Jordaan, 2018). However, e.g., Healy & Palepu, (1993); Jiraporn(2008) and Ronen & Yaari(2008) consider earnings management also as a signaling mechanism, which allows managers to transmit internal information to stakeholders. For instance, manager may execute discretion over earnings to communicate own expectations regarding future cash flows and thus increase the value of disclosed information (Jiraporn, 2008; Pereira, 2017)

There are number of different earnings managements approaches the most common of which are: accrual earnings management, which as its name suggests relates to manipulation of accruals, real earnings management, which is done by the intervention to real economic decisions and earnings smoothing, which relates to the decreasing of the volatility of firm's operating cash flows (Healy, 1999; Leuz et al., 2003; Mcvay, 2006; Scholtens, 2013). On the top of that there is a list of other novel advanced techniques, which are often classified as EM activities. This kind of EM techniques is characterized by high complexity and consequently it is less comprehensible for average investors and shareholders. Among such techniques is repurchasing of own stocks to improve company's market price and meet the analysts' forecasts. Also, there are certain advanced EM techniques, which utilize derivatives and establishing of separate legal entities to outsource certain transactions and to transfer selected items from the balance sheet. (El Diri, 2018)

2.2 Theories behind earnings management

Various theories, such as agency theory (Jensen & Meckling, 1976; Holmstrom & Milgrom, 1987; Palliam & Shalhoub, 2003; Cormier et al., 2013), prospect theory (Hsu & Chiang 2014; Wasiuzzaman et al., 2015), signaling theory (Healy & Palepu, 1993; Tucker & Zarowin, 2006), stakeholder theory (Prior, 2008) and game theory (Hua, 2011), has been used to explain the concept of earnings management. This master thesis intends to concentrate on the agency theory due to its popularity (Jiraporn et al. 2008, Pereira, 2017).

Agency theory, formulated into its modern form by Jensen & Meckling (1976), strives to explain the relationship between the agent (manager) and the principal (shareholder). The framework is grounded on the idea that information asymmetry is the factor, which constitutes one of the main problems in these parties' relationship. In other words, as agent possess more information than the principal, there is a higher risk that he/she may opt for adverse selection and engage in opportunistic behavior. (El Diri, 2018) In addition, agency theory uses the term moral hazard to refer to the agent-principal differences in motivation and attitude towards risk (Palliam & Shalhoub, 2003). Both moral hazard and adverse selection contribute to the problem of coordination in making decisions about *what information is disclosed*, *how it is disclosed* and *who has authority to make such decisions*. For example, described situation manifests, when shareholders charge managers with the authority for decision making, however willing to possess some control over this delegated work. (El Diri, 2018)

Agency problem results into conflict of interest with potential agency costs. Among the typical agency costs are inter alia principal's monitoring costs and the decrease in principal's welfare. (El Diri, 2018) According to such thinking EM can be considered as the agency cost, for example, in case shareholders make nonoptimal investment decisions based on misleading financial reports, which does not illustrate company's actual economy (Davidson et al 2004). Theoretically, the higher is the information asymmetry, the greater is the likelihood of opportunistic earnings management's occurrence (Cormier, D. et al. 2013). The Figure 2. schematically represents the concept of earnings management from the perspective of agency theory, which is based on the impact of information asymmetry on the agent-principal relationship.

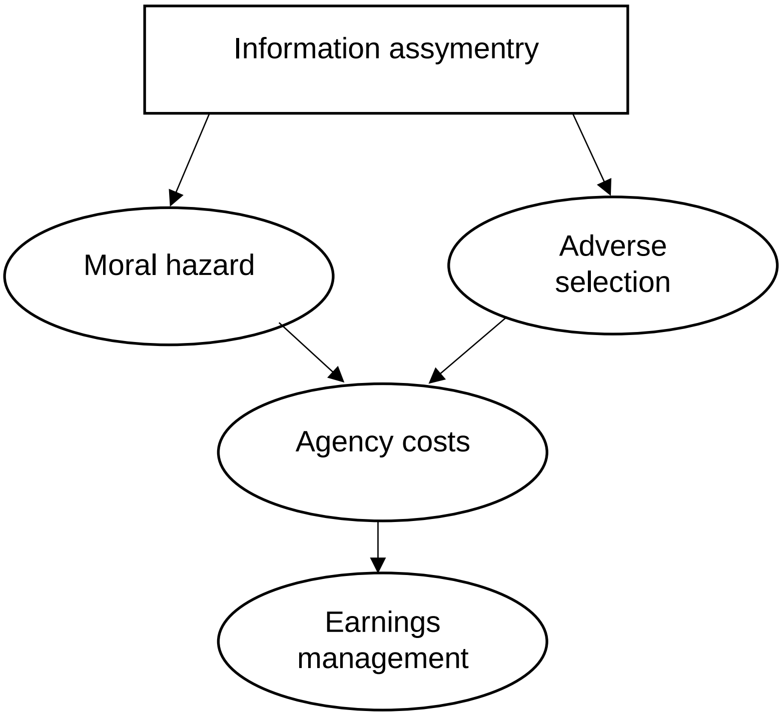

Figure 2. Earnings Management from the Agency theory perspective

2.3 Motivation for earnings management

Comprehension of the motives behind earnings manipulation is essential for the understanding the concept of earnings management and for the ability to detect its signs in the company's financial reports. Academic literature has considered the extensive number of earnings management motives about which yet there is no consensus (Dechow et al, 1996). However, in the research field persists a popular approach, which encapsulates the existing theories into 3 fundamental categories of earnings management motives (El Diri, 2018). Among these incentive groups are motives related to contracting, capital market and regulation (Healy, 1999). It is worth noting that further presented categories of EM incentives are not unconnected and to some extent overlap in the determination of EM behavior (El Diri, 2018).

Figure 3. below presents the EM motives, which are discussed in this section. Other significant factors influencing the level of EM utilization, such as culture, are left outside the scope of this discussion. In addition, the issues related to financial institutions and specifically such organizations' regulatory motives of EM are omitted due to predetermined specialization of this study.

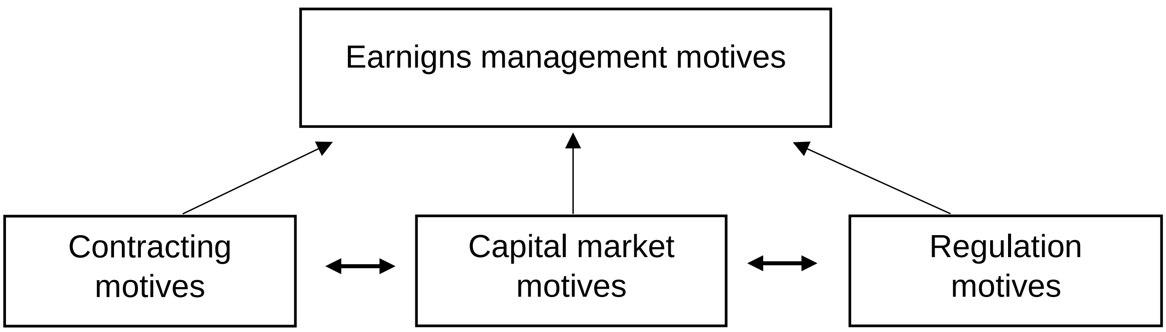

Figure 3. Motivation for earnings management

2.3.1 Contracting motives incentives

Company's financial data is commonly used by contracting parties for contract's monitoring and controlling purposes (Healy, 1999). Among the contracts creating incentives for EM are primarily lending and management compensations contracts. Dechow et al., (1996) refers to aforementioned EM incentives, respectively, as a debt and compensation hypothesizes. In practice, contracting motives for EM ground on manager's pursuit of meeting agreed contract conditions or avoiding of these conditions' tightening. (Healy, 1999)

Lending contracts commonly tend to limit such management's conduct, which would allow company to benefit stakeholders on the creditor's expense (Healy, 1999).

Many academic studies have considered the nature and different dimensions of the relationship between EM practices and debt financing (e.g., Holthausen, 1981; DeAngelo et al., 1994; Ahmed et al., 2002; Iatridis &Kadorinis 2009). Notably, aforementioned research has yielded controversial results (El Diri, 2018).

For instance, previous studies have found indications about companies managing their earnings upwards prior to loan application to improve its credit rating and thus obtain financing at a lower cost (Iatridis &Kadorinis 2009). On the other hand, other studies have found empirical evidence demonstrating that lending contracts may induce companies also for the downward management of earnings. This finding is based on the idea that lending contracts, as rule, are long term in nature and require meeting debtors' expectations over time. Practically, conservative reporting is assumed to keep lending party's expectations on the moderate level and thus alleviate potential dissatisfaction and countermeasures related to decrease in profitability. (Ahmed et., al 2002)

In turn, management compensation contracts' fundamental role is to align shareholders' and management's interests (Healy, 1985). As a rule, management compensation occurs in a form of bonuses or stock grants and its level is dependent on a chosen indicator, measuring the effort made by manager during the financial year. Despite their limitations, e.g., tendency for short-term orientation, earnings are often used in the evaluation of managerial performance. (El Diri, 2018)

Range of studies, such as ones by Watts & Zimmerman (1983) and Healy (1985), have demonstrated that managers tend to manage earnings upwards towards the level making them eligible for obtainment of bonuses. Among the approaches used to examine this issue has been the consideration of the relationship between the bonuses and the level of discretionary accruals. Later research of this field, however, has indicated that tying the management compensation to long term goals tend to reduce the incidence of EM. (El Diri, 2018)

2.3.2 Capital market incentives

Capital market motives for EM embrace the various contexts, where company's aspiration for stock price alteration leads to manipulation of accounting data. Among the above-mentioned contexts are inter alia initial public offerings (IPO), seasoned equity offerings (SEO), management buyouts and objectives of meeting analysts' forecast and meeting or beating a benchmark. (El Diri, 2018) In essence, as current earnings are among the factors influencing company's short-run stock price, it is feasible to modify the stock price and thus company's capital market valuation using EM techniques. In other words, the existence of this association between earnings and stock price can create incentives for earnings manipulation. (Healy, 1999)

IPOs and issuance of new shares are significant operations helping companies to obtain equity-based funding (Kothari 2001). Research has found the indications that companies engage in both accrual earnings management and real earnings management prior to IPOs and equity offers to pretend being more commercially successful and thus to succeed better in attracting of investors. (Teoh et al., 1998; Lo, 2008) However, EM use prior to IPO and SEO has been found to be limited by the typical high media and analysts' coverage, which multiplies the risks of EM practices to be detected (Teoh et al., 1998). Thus, aggressive utilization of earnings management in such circumstances exposes companies to the high risk of penalties and lawsuits (Yang, et al. 2016)

Another prominent capital market motive for EM is company's ambition to reach or beat a benchmark (Healy, 1999). Benchmark can take various forms such as zero earnings, preceding financial year's earnings or analysts' expectation (El Diri, 2018). Prior research has provided empirical evidence supporting the view that managers tend to opt for EM to avoid earnings decreases and losses as well as to reach earnings increase compared to the reference period (Burgstahler & Dichev 1997; Roychowdhury 2006; Cohen et al., 2008). Such managerial behavior can be partially explained by the perception that companies, which have not attained the benchmark often face with stock price recession following the publication of financial figures (Healy, 1999). In turn the companies, which meet benchmarks are commonly rewarded by the positive stock price development and the enhancement of both corporate and managerial image (Kothari 2001).

2.3.3 Regulation related incentives

According to Healy (1999) managers' regulatory motives for EM address their aspiration to either 'reduce regulatory cost or increase regulatory benefits'. In practice, regulatory motives for EM constitute a wide field of various instances covering inter alia issues related to industry and country specific regulation as well as taxation and accounting standards related questions (Ed Diri, 2018). Numerous studies have provided empirical evidence related to regulation induced earnings management (e.g., Key, 1997; Cohen et al., 2008; Chen, 2009). In other words, there are studies indicating that despite expected restriction of opportunistic behavior and improvement of firm's value it is often the case that regulation yields the opposite results (El Diri, 2018)

Relationship between regulation and earnings management is complex as companies may apply diverse EM schemes in response to regulatory pressure, while absence of regulation is expected to give a rise for opportunistic earnings manipulation since the lack of market protection (Cohen et al., 2008; Chen, 2009). On the one hand the range of studies has provided indication of firms managing earnings downwards in reaction to the information regarding expected regulatory changes. Such conduct is explained by companies' attempt to demotivate regulators or mitigate the rigidness and disadvantages of these regulatory adjustments. (El Diri, 2018) For instance, Key (1997) has demonstrated that telecommunication companies tend to opt for earnings' decreasing AEM to protect themselves from regulatory changes being under consideration. On the other hand, the selection of studies states that companies with poor profitability operating in highly regulated industries often resort to various earnings increasing AEM means in order to evade from harmful regulatory interference (El Diri, 2018)

In addition, prior research demonstrates that earning management opportunities vary depending on company's operating sector (Dechow et al., 1995; Healy, 1999; Moratis, 2018). For instance, manufacturing companies have a high aptitude to manipulate the level of production, which e.g., in case of its intended increase leads to lower production cost and thus higher margins (Roychowdhury 2006). In contrast, retail companies, which typically possess high levels of receivables have higher prospects to be accused of bad debt manipulation (El Diri, 2018) Furthermore, such factors as state-protection and the degree of industry's regulation influence companies' EM manner and use frequency. According to Gu et al., (2005) companies in state-protected and highly regulated companies are less likely to apply EM practices as compared to ones operating in unregulated industries. The primary reasons behind this difference are regulated sectors' higher supervision and restrictions upon discretionary use of accounting policies. (Gu et al. 2005)

2.4 Types of earnings management

In the first part of this section the main EM types, which were chosen for this study, i.e., accrual earnings management and real earnings management are presented, defined, and discussed. In turn, the second part of this sections considers various advantages and disadvantages of both EM methods and presents the considerations behind their use.

2.4.1 Accrual based earnings management

Accrual accounting is an accounting method, whereby accounting transactions are recorded in the financial year upon occurrence regardless the time when transactions' cash flow has been factually collected. Accruals allow managers to issue periodical financial reports. (Menicucci, 2020) Additionally, accruals are assumed to be helpful in alleviating timing and matching problems related to cash flows and thus configuring accounting information to better reflect company's actual financial performance (Pereira, 2017; El Diri, 2018). Aside from regular accruals accounting, this principle may be misused for earnings' manipulation purposes (Menicucci, 2020).

Accrual earnings management (AEM) can be defined as a mean of managing earnings by manipulation of accruals without direct cash flow consequences (Roychowdhury, 2006). AEM is done by application of judgment and altering accounting methods, policies or estimates used for presentation of a certain transaction (Zang, 2012; Pereira, 2017). Thus, accrual earnings management is practically enabled by the flexibility in accounting policies (Healy, 1999). The greater is the level of discretion in accruals, the greater is the chances for AEM utilization (Dewi & Herusetya, 2016). Examples of accrual-based earnings management are changing of depreciation method for non-current assets, delaying asset write-offs, changing the cost formulas for inventory, changing estimates for provision for doubtful accounts and scheming classification of gains and extraordinary losses (Roychowdhury, 2006; Zang, 2012; Pereira, 2017)

Accruals can be exploited to manage earnings either into upward (i.e., maximization strategy) or downward (i.e., minimization strategy) directions. (El Diri, 2018; Jordaan, 2018) Important accruals' peculiarity to be emphasized is that they reverse in the subsequent financial year. In practice, it leads to the situation where earnings manipulated in certain direction using accruals in current reporting period will reverse to the opposite direction in the future. This consequently places restriction on AEM's utilizations for the same items on the continual basis. (El Diri, 2018)

2.4.2 Real earnings management

The second traditional earnings management approach, real earnings management (REM), is based on earnings' misrepresentation via structuring of real transactions

(Pereira, 2017). REM is defined as ‘a purposeful action to alter reported earnings in a direction, which is achieved by changing the timing or structuring of an operation, investment, or financing transaction, and which has suboptimal business consequences’ (Zang, 2012). REM is also referred to as natural income manipulation (Pereira, 2017). Practically, REM includes various methods, which common feature is abandoning of practical decision with the aim to falsify the real economic situation of the company and to make external parties believe that such performance level has been achieved in the normal course of operations (Zang, 2012; Yates, 2016).

Examples of REM are: (i) overproducing inventory that leads to lower cost of goods sold (COGS) and thus greater profit; (ii) suggesting price discounts or relaxing the credit requirements to temporarily increase sales; (iii) intentional reduction of necessary discretionary expenses such as R&D, capital expenditure, employee training, maintenance expenditures and marketing or administrative costs, allowing to present greater earnings; (iv) postponing of a new project, enabling to keep earnings on the higher level; (v) alterations in shipment schedules, which influence the timing of income recognition; (vi) sales of profitable assets, which increase fiscal year’s earnings (Graham et al., 2005; Roychowdhury, 2006; Zang, 2012; Dewi & Herusetya, 2016; Kothari et al., 2016; Huang, 2017; Jordaan, 2018).

Real earnings management affects company’s free cash flows and practically leads to refusal of certain value maximizing activities in sake of EM goals, e.g., avoidance of loss or beating a benchmark (Cohen 2008). Such intervention in a form of REM is assumed to impact negatively upon corporate operative activities as well as upon company’s prospective stock returns (Roychowdhury, 2006; Zang, 2012)

2.4.3 The use of AEM and REM

Earnings management research has been interested in the trends in the use of outlined EM types (Burnett, 2012). Cohen et al., (2008) argues that the accounting scandals and consequent legislation tightening, such as Sarbanes Oxley act of 2002 (SOX), have influenced to the decrease in the use of AEM and have led to switching to REM. This argument is also supported by many other academic papers such as the one by Evans et al., (2015), which has provided an empirical evidence indicating that strong enforcement has resulted into the trend of switching from AEM to REM among American companies, which use US GAAP.

According to Graham et al., (2005) AEM practices are restricted by the presence of skillful auditors. High quality audit leads to the higher probability that the use of AEM is detected and thus managers are less inclined to utilize it. (Graham et al., 2005) In contrast, the use of REM generally is less scrutinized by auditors as their task is to provide the reasonable assurance that financial reporting is made according to GAAP, while the judgement about managers decisions related to real activities is out of their responsibility scope (Burnett, 2012). Furthermore, it is way harder for auditors to detect the use of REM compared to the AEM's detection (Dewi & Herusetya, 2016). Another reason making the use of AEM less popular is the limited nature of accounting flexibility and earlier discussed accruals' reversing characteristic, which sets certain restrictions on the accruals' manipulation. Companies should follow the accounting choices made in prior periods (e.g., amortization method) and they cannot change these choices at the regular basis. (Roychowdhury, 2006).

However, there are also factors, which discourage managers to use REM. For example, according to Zang (2012) company's competitive position in the industry, solvency, the level of institutional investors' scrutiny and REM's tax consequences restrict the use of real activities manipulations among managers. Also, she has argued that due to its nature, REM can lead to the reduction in firm's value as such activities, which help to increase earnings of a current period, most likely will negatively affect future period's cashflows. For instance, overproduction, which boosts the current period's earnings, most likely will lead to greater inventory holding costs in the subsequent period and thus reduction in earnings. (Roychowdhury, 2006). Other examples of negative consequences of REM are possible turnover reduction in future caused by marketing budget's contraction and increase in the amount of doubtful debts realized due to credit terms' mitigation (Jordaan, 2018) Furthermore, it should be noted that REM is considerably costly than AEM taking into consideration both indirect and opportunity costs as wells as REM's characteristic genuine cash flow consequences (Cohen, 2008; Kothari, 2016; Pereira, 2017).

According to Zang (2012) managers tend to use both REM and AEM as direct substitutes due to existing trade-off between two of these EM approaches. Furthermore, the choice between EM techniques requires weighing of each technique's costs and benefits as wells as appraising of company's current circumstances (Yates, 2016) In addition, it is worth noting that REM and AEM are used also simultaneously during the same financial period mostly in a way that REM is preceded by AEM (Szczesny et al., 2008; Kothari, 2016)

Lastly also company's operating industry influences upon managers EM method choice. This argument is based on the observation that different industries has different relative importance of financial statements' items. For example, according to Singer (2007) IT companies are more inclined to manage earnings using REM approach of cutting R&D expenditure, whereas assets-based enterprises more commonly opt for such AEM methods as sale's accruals management. (Singer, 2007)

3 Relationship between CSR and EM practices

This chapter provides information regarding the second main topic of this master thesis, i.e., corporate social responsibility. In addition, this chapter introduces the theories related to the relationship between corporate social responsibility and earnings managements. The theories presented in this chapter aim to support the conduction of the empirical part of this study.

3.1 Conceptual evolution of the CSR concept

Corporate Social Responsibility is about 'serving people, communities, and the environment in ways that go above and beyond what is legally required of a firm' (Cui & Na, 2018). CSR concept does not have a single distinct definition. Additionally, CSR has undergone substantial changes both in its manifestations and its perception all the way from 'irrelevant and doubtful idea to a high-ranking topic on research agendas'. (Moura-Leite, 2011)

The first, however unsuccessful attempts to implement the CSR to the business context were conducted in the beginning of the 20th century. Lee (2008) has presented a real-life example of the early perception of the CSR concept using the case of Ford Motor Company. Namely in 1919 this company's management got a claim by the group of shareholders. The claim was based on shareholders' complaint regarding management's intention to invest to society benefiting projects (job-creating construction of a new plant) instead of increasing shareholders' dividends. (Lee, 2008) Among the hypothetical reasons behind such attitude towards CSR was concepts vagueness in moral and macro-social terms. Namely, at that period shareholders were unaware both about CSR's ability to serve their interests and CSR's potential to improve company's performance (Moura-Leite, 2011).

According to Lee (2008) conceptualization of CSR has developed both (i) in terms of the level of analysis from consideration of the 'macro social effects to an organizational-level analysis of CSR' and its effect on organization's operations and efficiency and (ii) in terms of the theoretical orientation, where scholars has turned from 'explicitly normative and ethics-oriented studies to implicitly normative and performance-oriented studies' (Table 1). (Lee, 2008)

Table 1. Development of the CSR conceptualization (Lee, 2008)

	Early approach	Contemporary approach
Level of analysis	Macro social effects	Organizational-level analysis of CSR
Theoretical orientation	Explicitly normative and ethics-oriented arguments	Implicitly normative and performance-oriented managerial studies

The shift between the above presented approaches has been gradual. In 1950s-1960s the macro social view on CSR manifested in the idea that CSR is a way to correct certain social failures of the economy. (Moura-Leite, 2011) At this period CSR's dominating definition was the one by Bowen (1953). It stated that 'CSR refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society'. This standpoint had been scrutinized by the views, according to which the correction of failures should be the concern of politicians, while company's foremost role is to maximize the assets of shareholders. In addition, at this period the CSR feasibility was heavily criticized in conjunction with agency problems, which could potentially impede CSR's actual implementation, due to managers' opportunistic behavior. (Lee, 2008)

In turn in 1970s has evolved a new theoretical view that attempted to consider CSR activity along with corporate financial performance (CFP) as a part of organization's performance. This stage had resulted into evolution of CSR discussion to the more material and perceivable level in regard to organizations and laid the foundation for the research of the financial effects of CSR. However, at this point CSR and CFP were still considered as logically separate concepts having merely loose connection. (Lee, 2008; Moura-Leite, 2011)

Ultimately in 1980-1990 the proper theoretical frameworks explaining the mechanisms that link CSR and CFP has been established, which represents the contemporary CSR approach. Since 1990s the concept of corporate social responsibility has become almost ubiquitous both in corporate and governmental organizations. For example, by the end of 1990s almost 90% of Fortune 500 companies has integrated CSR as 'an essential element in their organizational goal', while only in 1970s the concept was barely mentioned by less than half of them. (Lee, 2008)

Nowadays CSR activity manifests by companies joining CSR societies and publishing CSR reports, which detailly articulate reporting entity's actions undertaken to address own social, environmental, and economic impacts on society (Cuervo-Cazurra, 2018). Escalation of the criticism of corporate practices, caused by inter alia corporate scandals, environmental disasters made by big corporations and awareness about such issues as child labor, along with other factors have promoted the development and increased popularity of CSR. Thus, to some extent CSR has emerged as a response to stakeholders' pressure. (Idowu et al. 2013)

3.2 CSR theoretical framework

The following sections present the central theoretical frameworks about corporate social responsibility: Pyramid of Corporate Social Responsibility (Carroll, 1991) and Triple Bottom Line (Elkington, 1997).

3.2.1 Pyramid of CSR

Pyramid of corporate social responsibility by Carroll (1991) is a model, according to which CSR embraces number of business responsibilities constituting total CSR. Among the aforementioned responsibilities are economic, legal, ethical and philanthropic responsibilities. (Carroll, 1991) As its name suggests Carroll's model is presented in a form of pyramid, consisting of four levels each relating to distinct CSR involvement type (Turker, 2013) Carroll's pyramid is a prominent framework, providing a holistic view on CSR. The indicated four-part model still acts as a reference point in CSR discourse and remains to be a popular research topic, despite the growing number of new theories regarding the subject (Turker, 2013; Carroll, 2016). Hereafter is presented a graphics depiction of the model by Carroll 1991 (Figure 4.).

Figure 4. The pyramid of corporate social responsibility Carroll (1991)

Pyramid's bottom part comprises of economic responsibilities, which according to Carroll are related to company's duties to perform in a profit maximizing manner and to strive for high operational efficiency and strong competitive position. (Carroll,

1991) The listed aspects should be in place in order to ensure company's ability to produce goods and services corresponding society's needs. Whereas unprofitable companies face with a high probability to eventually cease to exist being displaced by competitors. Thus, unsuccessful enterprises naturally cannot proceed to upper levels' responsibilities, if they fail to fulfil economic one (Carroll, 2016) Thereby economic component serves as a foundation for pyramid's other responsibilities (Carroll, 1979).

In turn, pyramid's succeeding layer i.e., legal responsibilities relate to organization's liability to comply various regulations and laws. Carroll (1991) expounds it as follows: 'firms are expected to pursue their economic missions within the framework of the law'. Carroll (1991; 2016) refers to legal responsibilities as 'codified ethics', implying that legislation provides minimal ground rules imposed by lawmakers and is expected to be obeyed by companies. Legal responsibilities along with economic ones can be considered as fundamental elements providing the basis for implementation of the rest of CSR responsibilities (Turker, 2013)

Aside from the above discussed responsibilities, accountable companies should take into consideration also actions, which outstep the legal requirements. In this context it means business operation in compliance with societal mores and ethical norms. Organizations should take these aspects seriously inter alia as they often become a driving force for future legislation. (Carroll, 1991) Essentially, according to CSR pyramid framework companies are required to pay attention to what their central stakeholders (e.g., consumers, local community, employees) regard as fair and just and act respectively (Turker, 2013). In addition, the model emphasizes that to fulfil ethical obligations organization should not opt for compromising ethical norms in a pursuit of corporate targets. (Carroll, 2016)

The top layer of the Carroll's pyramid encompasses philanthropic responsibilities of the business. In essence, philanthropic responsibilities include voluntary actions performed by the company for the human welfare or environment. (Carroll, 1991)

Philanthropic actions of business may take various forms such as donation of funds, products or services, volunteering activity of company's personnel including executives and actions directed to community development. Corporate philanthropic responsibilities are not responsibilities in a literal sense. However, such behavior is rather common in modern business environmental and is expected to be practiced by organizations. Nonetheless, unlike in case of ethical responsibilities, philanthropic responsibilities' neglect does not necessarily lead to company being labeled as 'unethical'. In addition, it is worth noting that philanthropic activity of the business is not driven purely by altruistic urge. More commonly such generous business giving is utilized as a mean to manage company's reputation. (Carroll, 2016)

3.2.2 Triple Bottom Line

Triple Bottom Line (TBL) is widely used accounting framework for CSR by Elkington (1997), which proposes CSR's scope division into three dimensions: economic, social, and environmental. Aforementioned framework is also known as 3P model comprising of three pillars: Profit, People and Planet. (Savitz, 2006; Sitnikov, 2013) Figure 5. demonstrates the graphical presentation of model by Elkington (1997).

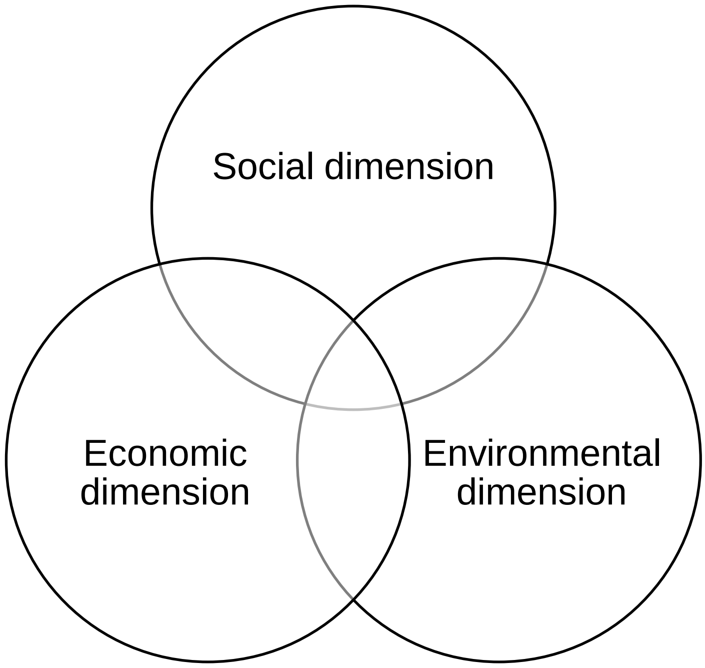

Figure 5. Triple Bottom Line (Elkington, 1997)

TBL framework provides a tool for the comprehensive measurement of corporate performance (Slaper & Hall 2011). Unlike conventional approaches (e.g., profit, shareholder value) TBL's novelty is in incorporation of social and environmental dimensions into the task of activity assessment (Slaper & Hall 2011). Such a broader evaluation technique is justified by the point that apart from financial assets also social (e.g., infrastructure, employees' input) and environmental resources (e.g., energy) play an important role in business operation. (Savitz, 2006) Except of performance evaluation TBL framework intrinsically assists companies in coordination and reporting of sustainable business practices (Dos Santos et al. 2014) TBL reporting can be considered as 'corporate contact with stakeholders', which illustrates company's tactic to handle all the three 'bottom lines' of its activity (Sitnikov, 2013).

According to Savitz (2006) 'TBL captures the essence of sustainability by measuring the impact of an organization's activities on the world'. He compares TBL to another managerial tool, Balanced Scorecard (BSC) by Kaplan & Norton (1992) as TBL is not providing performance evaluation using a single number, but rather presents both in numbers and words the extent to which company succeeds (or not) in value creation for shareholders and society. (Savitz, 2006) The further detailed information regarding the practical ways of TBL dimensions' measurement approaches will be left outside the scope of this master thesis.

Economic dimension of CSR

Economic dimension of CSR or respectively 'Profit' according to 3P model, concerns economic benefits towards society. Primarily, economic dimension of CSR is about the company's explicit 'economic effect on society's economic setting', as opposed to such internal products of organization's financial performance as revenue. (Savitz, 2013; Uddin et al. 2008). However, in this context it is worth emphasizing that company's outcome of financial performance is also a significant component, providing a foundation for responsible business operation (Savitz, 2013). This view regarding profitability being a starting point for sustainable operation resembles Carroll (1991) pyramid's notions in respect to economic responsibilities of CSR companies. However, in this regard both Elkington (1997) and Carroll (1991) agree that pursuit for growth and profitability should not be achieved involving procedures undermining social and environmental aspects.

According to Uudin (2008) the examples of favorable economic effects of the business are organizations' tax contribution and multiplier effect. Taxes inherently promote economy by providing funds, which will be used for society benefiting purposes such as provision of public goods. Multiplier effect, in turn, refers to indirect and direct impacts of companies' operation upon stakeholders. For example, company's hiring of an employee leads to the rise in the consumption in the economy and the increase in the government's tax revenue. (Uudin, 2008)

In essence, TBL framework advocates in favor of the long run orientation in regard to business planning and selection CSR financial metrics. For instance, although employee payment rise may seem to be a drain of resources in the short run, in future it may result in less employee turnover and better commitment. In addition, consideration of the other bottom lines (i.e., social and environmental) in the implementation of economic aspects is appreciated among investors due to such approach' s future risk prevention outcomes. (Conway, 2018)

Social dimension of CSR

According to social dimension of TBL responsible companies should be 'accountable for the social effects the company has on people' and operate in a fair and benefiting manner towards various stakeholders such as employees, people connected to company's supply chain, customers, and community (Elkington 1997; Uudin 2008; Alhaddi, 2015). Practically, it means that companies' management should incorporate social interest into own decision-making and should undertake such actions, which would be mutually beneficial both to surrounding individuals and organization (Uudin, 2008).

Examples of the conduct in accordance with social bottom line are ensuring intolerance towards child labor both in own and suppliers' operations and provision of the sufficient salary and safe work conditions for the personnel (Sitnikov, 2013). Aforementioned instances are particularly relevant for multinational companies having operations in developing countries (Conway, 2018). In addition, social dimension of TBL concerns activities allowing organizations to 'give back' to community via e.g., initiatives connected to healthcare and education. (Sitnikov, 2013)

Furthermore, contemplation of social issues is justified due to its risks' minimizing effects. In turn, such issues disregard on the contrary may lead to detrimental consequences for the business. In other words, it is often the case that ignoring of corporate responsibilities towards community result in economic costs (Alhaddi, 2015). For instance, Primark has faced with customers' boycott after media has reported about its manufacturing building's collapse in Bangladesh, which has led to numerous deaths among personnel. Company has been accused of deliberate provision of unsafe working environment for its labor force. (Conway, 2018)

Environmental dimension of CSR

Environmental dimension of TBL framework, as its name suggests, relates to companies' resolutions to do business in environmentally sustainable manner (Elkington, 1997). Practically, such conduct manifests in companies' efforts to benefit natural environment and to organize its operation in a way, which leads to least environmental effects (Sitnikov, 2013) According to TBL the examples of the environmentally right corporate conduct are commitment to sensible energy use and consumption of nonrenewable resources as well as reduction of carbon footprint, greenhouse gas and production waste (Alhaddi, 2015).

3.3 Relationship between CSR and EM

The following chapter starts by presentation of EM-CSR research on the general level and proceeds to introduction of hypotheses, which attempt to explain the relationship between earnings management and corporate social responsibility: opportunistic hypothesis and ethical hypothesis. Both hypotheses have been extensively used as basis for the research related to the association between EM and CSR (Kim et al., 2012).

3.3.1 Literature review of the relation between CSR and EM

As was mentioned earlier in this master thesis there is no consensus among scholars regarding the nature of the association between earnings management and corporate social responsibility. The studies regarding the relation between EM and CSR have been conducted using various approaches, sample sizes, sampling methods, proxies, geographical scopes as well as time frames (Moratis, 2018).

Chih et al., (2008) has contributed the research field by conduction of the holistic international study testing the CSR-EM relationship, using three different EM practices i.e., earnings smoothing, earnings aggressiveness, and earnings losses and decreases avoidance. This study has utilized a sample of 1653 companies from 46 countries. Chih et al., (2008) has hypothesized that there are four possible association types between CSR and EM. The first association type refers to the negative relationship between CSR and EM, implying that certain good CSR performers are prone not to engage in earnings manipulation. The second association type appertains the companies with advanced CSR activity, which however resort to earnings smoothing in order to maintain the predictability of earnings. Thus, the second association type presents the positive relationship between corporate social responsibility practices and EM. The third relation type as well deals with the positive association and includes the instances when active CSR performers are driven by the increased incentives for earnings management. Finally, Chih et al., (2008)'s fourth association type considers cases, when the relationship between CSR performance and EM activity is absent. However, the overall conclusion reached by the above presented study's sample analysis has demonstrated that while firms with high CSR orientation seems not to engage in earnings smoothing and avoiding earnings losses and decreases, they tend to be active in utilization of earnings aggressiveness.

In turn, Prior et al., (2008) in the study covering 593 firms from 26 countries, hypothesized as well as found empirical evidence supporting the standpoint that managers tend to engage in CSR due to own opportunistic intentions and they view CSR activity as an occasion to provide compensation for stakeholders for the harm caused by EM. The study used the term entrenchment to refer to such stakeholders' compensating attempts, which aim to secure manager's position and benefits. In other words, this academic paper has indicated the positive relationship between CSR and EM, meaning that managerial use of EM results in more active CSR performance. Prior et al., (2008) amplified the results by demonstrating that this relationship retains for both accrual earnings management as well as for income smoothing.

Gargouri et al., (2010) investigated the nature of the relationship between EM and overall CSR performance as well as its individual dimensions using a sample of 109 Canadian enterprises. The results of the study have indicated the positive association between EM and CSR dimensions connected to environment. Researchers have attributed the positive association between environmental dimension of CSR and EM to the idea that the expensiveness of environmental activities serve and its subsequent negative influence on the financial performance acts a stimulus for managers to resort for earnings management.

Scholtens and Kang (2013) explored the relationship between earnings management and corporate social responsibility in the Asian context known for the weak legal system Using a sample of 139 companies and earnings smoothing and earnings aggressiveness as EM proxies, the study has demonstrated that Asian companies devoting attention to CSR tend to engage in EM significantly lesser compared to non-CSR companies. Thus, the study has concluded that in Asian countries CSR has a moderating effect upon the level of the EM utilization.

In turn, Gao &Zhang (2015)'s attempt to characterize the direction of the relations between earnings management and corporate social responsibility has also led to the conclusion regarding the inverse association. Their investigation covering 109 Canadian companies and utilizing earnings smoothing as EM measure has indicated that reported earnings of socially responsible companies practicing income smoothing tend to be more value relevant.

Muttakin et al., (2015) considered the CSR-EM relationship and specifically aimed to study whether the presence of powerful stakeholders results in the better CSR performance and lesser EM utilization. The study employed the sample of 135 non-financial listed firms operating in Bangladesh and earnings accruals as a proxy of earnings manipulation. The investigation demonstrated that although ordinary companies with developed CSR activity and reporting tend to engage more actively in earnings management, enterprises operating in such stakeholder dominated industries as export, on the contrary exhibit both good levels of financial reporting quality and high CSR orientation.

3.3.2 Hypotheses of the relationship between CSR and EM

Ethical hypothesis

According to ethical hypothesis company's management has a considerable stimulus to provide transparent financial reporting and act in accordance with CSR norms. This conception is settled on the idea that companies are aware that unethical behavior will result in such unwanted consequences as decrease of company's market value, deterioration of corporate reputation and increase in the cost of capital. In turn, among the possible micro level effects of ethical misconduct are inter alia manager's dismissal and reduction of his/her wage. (Jordaan, 2018) Thus, ethical theory asserts that awareness about such aftermath drives managers towards socially and environmentally responsible behavior and production of high-quality financial reports (Kim et al., 2012). Respectively ethical hypothesis extends also on earnings management practices, which likewise are hypothesized to be restricted by above-mentioned factors (Jordaan, 2018).

Numerous studies have provided empirical data supporting ethical hypothesis of the relationship between CSR performance and earnings management (Kim et al., 2012; Bozzolan et al., 2015; Lui, 2017). For instance, Kim et al., (2012) has provided support for the following hypothesis by the study with a sample of 23391 companies. The indicated study has found that firms with the developed consciousness about CSR tend to practice aggressive EM, both its accrual and real approaches, less frequently in contrast to non-CSR firms.

In turn, according to the results of international investigation covering 24 countries by Bozzolan et al., (2015) corporate social responsibility explicitly restricts real earnings management endeavors. CSR oriented companies are driven to restrain from REM due to its adverse impact on company's future economic potential, as it naturally contradicts such firms' objectives and approaches. Furthermore, the study in the question has documented that in countries with strong legal enforcement REM is restrained even more firmly in companies with high CSR orientation. (Bozzolan et al., 2015) These findings indicate that country's institutional factors may have moderating role on the relationship between earnings management and CSR practices (Jordaan, 2018).

Opportunistic hypothesis

Opportunistic hypothesis of the relationship between CSR and EM argues in favor of the positive relation and states that companies' CSR performance may be driven by the pursuit of a manager's self-interest (Kim et al., 2012). Opportunistic hypothesis has been supported by the number of empirical studies such as ones by Jensen & Meckling (1976), Petrovits (2006) and Prior (2008). Advocates of this theoretical approach argue that managers tend to exploit CSR inter alia as a mean to improve company's media coverage and customer loyalty (Prior, 2008). Furthermore, companies may devote to CSR to disguise corporate malpractices among which is also earnings management (Jordaan, 2018). In addition, it has been observed that CSR activities may be exploited to reduce shareholders' and investors' scrutiny and to lobby company's own interests and thus obtain favorable regulation. (Prior, 2008)

In essence, the hypothesis of the positive relationship between CSR and EM builds on the idea that as CSR activity shows the company in a good light, it reduces stakeholder's scrutiny and thus provides a setting for EM utilization with a lower risk to face with complaints (Prior, 2008). Practices, such as aforementioned opportunistic engagement into CSR with a view to reduce scrutiny on earnings' quality, are referred to as 'greenwashing' (Jordaan, 2018). Overall, such an abusive utilization of CSR brings into doubt its credibility and efficiency as corporate governance mechanism (Prior, 2008).

According to Prior (2008) another argument to justify opportunistic approach to CSR and its positive relationship with EM, relates to the employment of entrenchment initiatives. In this context CSR activities, such as concessions to certain pressure groups or organization of a generous employee- focused social initiative, can be seen as manager's self-entrenchment strategy to please and in some measure compensate shareholders for the mid-term damage caused by EM utilization. (Prior, 2008)

4 Methodology

In the first part of this section are introduced the aspects related to data collection. This is followed by the presentation of estimation models for detection of accrual and real earnings management as well as measurement CSR and control variables. Finally, the last part of this chapter exhibits the models used to answer core research questions, dealing with the relationship between earnings management and corporate social responsibility.

4.1. Data

The data used for this master thesis's empirical tests consist of balance sheet, financial statement and CSR data of Finnish companies listed on the Nasdaq OMX Helsinki exchange between the years 2015-2018. It is worth noting that the number of companies in a chosen sample differs between the years due to commonplace IPOs, delistings, re-listings, mergers, and acquisitions. Financial data is obtained from DataStream database, whereas the data regarding the corporate social responsibility practices is collected from Thomson Reuters Eikon database. Following the previous research this study utilizes the annual time frequency. The currency used to express financial data is EUR (€).

Naturally only the firms with all the necessary variables being available are included in the sample. In addition, as this study's tests have required the calculation of the variables using the data from the previous year (t-1) and the two last years (t-2), it has also impacted to the size of the final sample, i.e. solely the firms with available financial data for years 2013-2018 has been selected. Furthermore, banks, financial and insurance institutions (SIC codes 60- 67) are omitted due to their accounting and legislative peculiarities making them incomparable with companies from other sectors.

4.2 Presentation and measurement of the variables

Correspondingly with Kim et al., (2012), Zang (2012) and Jordaan (2018) this research takes into consideration two forms of earnings management: accrual earnings management and real earnings management. As was outlined earlier in this paper, such approach is based on the indications about its improved ability to capture the actual level of earnings management. This assumption is grounded on the inferences that both of EM forms are used as a substitute for each other. (Jordaan, 2018) In addition, as accruals and cashflows are strongly related and are determined concurrently, it is necessary to include both AEM and REM proxies into estimation model to avoid endogeneity problems (Zang, 2012).

4.2.1 Model for AEM

There is a variety of ways to examine accrual earnings management. For instance, there are approaches, which focus on discretionary accruals, specific accruals, and positive earnings threshold. (Pereira, 2017) However, discretionary accruals are commonly used in the literature as a proxy for accrual earnings management (Jones, 1991; Dechow et al., 1995; Kothari et al., 2005; Prior, 2008; Kim et al., 2012; Zang, 2012; Jordaan, 2018; Moratis, 2018; Almahrog, 2018). Consistent with prior studies this master thesis uses discretionary accruals for estimation of accrual-based earning management practices. The level of discretionary accruals is estimated using pooled version of Modified Jones model by Dechow et al., (1995).

This model was developed based on the model by Jones (1991) and aimed to mitigate some of the shortcomings of its predecessor. Dechow et al., (1995) model's innovation is the adjustment of the change in the revenue for the change in account receivables, which allows to refrain from discretion in credit sales and thus to eliminate their influence upon the normal accrual's estimation result (El Diri, 2018).

Dechow et al., (1995) AEM estimation begins from measuring total accruals (TA) using balance sheet approach. TA are computed using the following equation:

$$TA_{i,t} = \frac{(\Delta CA_{i,t} - \Delta CL_{i,t} - \Delta Cash_{\ i,t} + \Delta STD_{i,t} - Dep_{i,t})}{A_{i,t-1}}, \ (1)$$

where:

$\Delta CA_{i,t}$ = change in current assets

$\Delta CL_{i,t}$ = change in current liabilities

$\Delta Cash_{\ i,t}$ = change in cash and cash equivalents

$\Delta STD_{i,t}$ = change in debt included in current liabilities

$Dep_{i,t}$ = depreciation and amortization expense

$A_{i,t-1}$ = total assets at *t-1*

In the next step Dechow et al., (1995) method proceeds by decomposition of total accruals into non-discretionary and discretionary accruals. This is done by regressing of the below presented equation (2), where the error term corresponds to the level of discretionary accruals.

$$\frac{TA_{i,t}}{A_{i,t-1}} = \propto_1 \left(\frac{1}{A_{i.t-1}}\right) + \propto_2 \frac{(\Delta REV_{i,t} - \Delta REC_{i,t})}{A_{i,t-1}} + \propto_3 \left(\frac{PPE_{i,t}}{A_{i,t-1}}\right) + e_{i,t}, \ (2)$$

where:

$\propto_1, \propto_2, \propto_3$= firm specific parameters

$TA_{i,t}$= total accruals in year *t*

$A_{i,t-1}$= total assets at *t-1*

$\Delta REV_{i,t}$= revenues in year *t* less revenues in year *t-1* scaled by total assets at *t-1*

$\Delta REC_{i,t}$= net receivables in year *t* less net receivables in year *t-1* scaled by total assets at *t-1*

$PPE_{i,t}$= gross property plant and equipment in year *t* scaled by total assets at *t-1*

$e_{i.t}$= $DA_{i,t}$= error term, discretionary portion of accruals, proxy of AEM

Discretionary accruals estimated using above displayed model can be considered either as absolute or signed values. This study intends to concentrate primarily on the absolute value of discretionary accruals, $DA_{it}(ABS)$ (ABS_DA) due to number of reasons. Firstly, it is more convenient in respect that accruals reverse in subsequent period. (Jordaan, 2018) Secondly, it is justified as there is no specific reason to suspect the prevalence of the AEM use to a certain direction. In other words, absolute value of discretionary accruals enables to study the combined effect of income-increasing and income-decreasing AEM. (Jiraporn, 2008).

However, it is also practical to undertake the additional analysis, utilizing the signed discretionary accruals divided into positive and negative subgroups $DA_{it}(\ POS, NEG)$ (POS_DA, NEG_DA) This approach provides opportunity for evaluation of the nature of the relationship between CSR performance and either type of AEM (i.e., minimization and maximization strategy) and consideration of the potential predominance of either type of these manipulation directions. (Jordaan, 2008)

4.2.2 Model for REM

As was mentioned earlier this master thesis utilizes the model by Dechow et al., (1998) for estimation of REM practices. This model is widely used in the field's research and it has been proved to have reasonable construct validity (Cohen et al., 2008). This study considers abnormal level of cash flows from operations, abnormal production cost and their combined measure for the evaluation of the level of REM.

The former component of this model, dealing with the abnormal level of cash flows from operations, aims to study earnings manipulation via acceleration of sales (e.g., by giving price discounts). Such acceleration of sales leads to their temporary increase, which vanishes once the normal prices are introduced back. This manipulation's application results in greater earnings and lower cash flows in the current period. (Cohen et al., 2008) Practically, this REM estimation methods ground on the idea that if cash flows scaled by lagged total assets regressed on sales are lower that the industry norm, it is an indication of manipulation (Jordaan, 2018). Hereinafter is presented regression equation for detection of abnormal cash flows from operations:

$$\frac{CFO_{i,t}}{A_{i,t-1}} = \propto_0 + \propto_1 \left(\frac{1}{A_{i,t-1}}\right) + \beta_1 \left(\frac{S_{i,t}}{A_{i,t-1}}\right) + \beta_2 \left(\frac{\Delta S_{i,t}}{A_{i,t-1}}\right) + e_{i,t} \quad (3)$$

where:

$CFO_{i,t}$= normal cashflows from operations

$A_{i,t-1}$= total assets at the end of the period *t*

$S_{i,t}$ =sales during period *t*

$\Delta S_{i,t} = S_{i,t} - S_{i,t-1}$

$e_{i.t}$= error term, abnormal level of cash flows from operations (AB_CFO), proxy for REM

In turn, the second component of the Dechow et al., (1998) model, which is chosen to be estimated in this empirical study concerns abnormal production costs. This REM approach is based on the managerial decision to increase the production level in order to increase operating margins. This technique leads to the earnings' rise through the decrease of the costs of goods sold (COGS), which is achieved by the escalation of the production level. However, such intentional production growth also incurs greater holding costs and other productions costs, which is perceptible by abnormally high production cost compared to the given level of sales. In addition, this manipulation manifests by lower operating cash flows in relation to the actual total sales. (Cohen et al., 2008)

Overproduction of inventories is detected by regressing the production costs scaled by lagged total assets on sales. Higher production costs than the industry norm suggests that it may originate from utilization of REM. (Jordaan, 2018) Below are presented the formula for estimation of abnormal production cost.

$$PROD_{i,t} = COGS_{i,t} + \Delta INV_{i,t}, \ (4)$$

where:

$PROD_{i,t}$ = production cost at year *t*

$COGS_{i,t}$ = cost of goods sold at year *t*

$\Delta INV_{i,t}$ = change in inventory in year t

Cost of goods sold estimation equation:

$$\frac{COGS_{i,t}}{A_{i,t-1}} = \propto_0 + \propto_1 \left(\frac{1}{A_{i,t-1}}\right) + \beta \left(\frac{S_{i,t}}{A_{i,t-1}}\right) + e_{i,t} \quad (5)$$

Change inventory estimation equation:

$$\frac{\Delta INV_{i,t}}{A_{i,t-1}} = \propto_0 + \propto_1 \left(\frac{1}{A_{i,t-1}}\right) + \beta_1 \left(\frac{\Delta S_{i,t}}{A_{i,t-1}}\right) + \beta_2 \left(\frac{\Delta S_{i,t-1}}{A_{i,t-1}}\right) + e_{i,t} \quad (6)$$

Calculation of abnormal production cost can be simplified by combining of equations (5) and (6) based on the equation (4):

$$\frac{PROD_{i,t}}{A_{i,t-1}} = \propto_0 + \propto_1 \left(\frac{1}{A_{i,t-1}}\right) + \beta_1 \left(\frac{S_{i,t}}{A_{i,t-1}}\right) + \beta_2 \left(\frac{\Delta S_{i,t}}{A_{i,t-1}}\right) + \beta_3 \left(\frac{\Delta S_{i,t-1}}{A_{i,t-1}}\right) + e_{i,t}, \quad (7)$$

where:

$e_{i.t}$= error term, abnormal level of production costs (AB_PROD), proxy for REM

Following Cohen et al., (2008), Kim et al., (2012) and Jordaan (2018) this study will utilize both separate REM proxies, i.e., abnormal cash flows from operation and abnormal production costs as well as combined measure of REM, which is calculated by aggregating the residuals from models (3) and (7). The idea behind this aggregation approach is that the more extensive is company's engagement in REM the lower are its abnormal cashflows and the higher are its abnormal production costs, thus AB_PROD is deducted from AB_CFO resulting in lower combined REM. The lower is the AB_CFO and combined REM, the greater is respectively the extent of operational cash flows manipulation and REM utilization in the company. In turn the greater is AB_PROD, the more extensive is inventory overproduction in the company (Jordaan ,2018) Consideration all of three REM proxies is justified by the acknowledgement that different REM approaches has distinct implications for earnings and thus focusing only on combined REM would have led to the dilution of results (Cohen et al., 2008).

4.2.3 Combined measure of EM

In order to answer the research question number one presented in the section 1.2 the combined measure of earnings management is required. The are several ways in the literature to proxify the combination of real and accrual earnings management. For example, Bozzolan et al., (2015) has constructed the combined EM measure by aggregation of each earnings management types' decile values. However, this study intends to utilize total earnings management proxy suggested by Badertscher (2011). This combined measure has been used in such academic works as Franz (2014), Haga (2018) and Campa (2019).

Badertscher (2011) proxy capturing both AEM and REM is calculated as a sum of AEM and REM. Unlike in case of combined REM measure described in section 4.2.2, REM components of total measure of earnings management (later referred as EM) are modified prior to aggregation of AB_CFO and AB_PROD. Namely, AB-CFO is multiplied by -1 to unify the directions of both components of the required total REM measure. Thus, the greater is the value of EM variables, the more likely company engages in earnings manipulation activities.

4.2.4 CSR score

In this master thesis ESG combined score from Thomson Reuters Eikon database has been used as a proxy for companies' CSR performance. This CSR measure has been utilized in a range of academic studies in the various research fields, e.g., Chen et al., (2014); Durand & Jacqueminet, (2015); Dorfleitner et al., (2020). This score provides a comprehensive scoring of company's CSR performance based on both company-reported data and data from external sources. This measure considers CSR performance from the perspective of three dimensions, i.e., environmental, social and governance- related. Following dimensions are also referred to as pillars, which resembles CSR classification of the TBL model discussed in the chapter 3. The ESG combined score embraces altogether 10 categories each relating to certain dimension and making up the overall ESG Score. The categories and their respective dimensions are presented in Table 2. (Thomson Reuters ESG Scores, 2017)

Table 2. ESG combined score by Thomson Reuters Eikon

Pillars of ESG score		
Environmental	Social	Governance
Resouces use	Workfoce	Management
Emissions	Human Rights	Shareholders
Innovations	Community	CSR strategy
	Product responsibility	

The advantage of the use of this database's score as a proxy for CSR is that except of capturing the score of the company regarding each of the aforementioned pillars, it is adjusted by ESG controversies. In other words the combined ESG score of Eikon database discounts each ESG score using material negative records gathered from the media. Thus this measure enables to differentiate between companies, which genuenly act as resposbile as can be perceived from their CSR reports from ones, which either exxagerate their CSR related advancement or lack attestation of described actions' implementation. (Thomson Reuters ESG Scores, 2017)

Combined ESG score value range is between 0 and 1. For example, companies having the score between 0 to 0,25 are classified as having 'poor relative ESG performance and insuffiencent degree of transparency in reporting material ESG data publicly', whereas companies with the score between 0,75 and 1 on the contrary belong to the opposite class, comprising of indivudual companies having excellent ESG performace and highly developed ESG reporing trancparency. (Thomson Reuters ESG Scores, 2017)

4.2.5 Control variables

To diminish the potential problem of correlated omitted variables, i.e. control the effect of firm specific variables that may impact on financial reporting behavior, the level of EM and CSR performance, the following control variable has been chosen to be included into the empirical model: $SIZE_{i,t}$ .Prior research has indicated that aforementioned variable is convenient to include into EM related investigations as it may possibly explain substantial portion of the variation in EM (Roychowdhury 2006; Chih et al., 2008; Hong, 2011; Kim et al., 2012; Almahrog, 2018; Moratis, 2018).

The control variable, $SIZE_{i,t}$ is measured as a natural logarithm of total assets. This variable's purpose is to control for the firm size effect on the earnings management. There is no consensus regarding the nature of the company's size impact upon the level of earnings management. On the one hand there indications that larger companies face with greater capital market pressure, which serves as an incentive for EM utilization, i.e. EM use aimed to assist in satisfying investors and meeting analysts' expectations. On the other hand, companies of a bigger size have greater publicity, which leads to considerably more scrutiny by external parties. This in turn complicate the premises for earnings' manipulation due to increased risk of revelation. (Kim et al., 2012; Moratis, 2018). In addition, except of company size's relationship with EM application it has been found to be correlated with CSR performance (Prior, 2008; Kim et al., 2012)

4.3 Empirical models

To examine the relation between corporate social responsibility performance and the level of earnings management the following models are estimated using the linear regression:

Model 1:

$$EM_{it} = \beta_0 + \beta_1 \, CSR_{i,t} + \beta_2 \, SIZE_{i,t} + e_{i,t} \quad (8)$$

Model 2:

$$DA_{it}(ABS, POS, NEG) = \beta_0 + \beta_1 \, CSR_{i,t} + \beta_2 \, REM_{i,t} \, (COMBINED) + \beta_3 \, SIZE_{i,t} + e_{i,t} \quad (9)$$

Model 3:

$$REM_{i,t}(COMBINED; \; AB\_CFO \; ; \; AB\_ \, PROD \,) = \beta_0 + \beta_1 \, CSR_{i,t} + \beta_2 \, ABS\_DA_{it} + \beta_3 \, SIZE_{i,t} + e_{i,t} \quad (10)$$

Where:

$CSR_{i,t}$ =measure of CSR performance

$DA_{it}(ABS, POS, NEG)$ =measure of EM through discretionary accruals (absolute value / positive / negative)

$REM_{i,t}(COMBINED;\ AB\_CFO\ ;\ AB\_\ PROD\ )$ =measure of EM through real activities manipulation (combined REM / level of abnormal cash flows from operations / level of abnormal production costs)

$SIZE_{i,t}$ =variable controlling for company size impact

Following Cohen et al., (2008), Kim et al., (2012) and Zang (2012) this study likewise intends to control for the substitutive nature of EM types by inclusion of REM proxy $REM_{i,t}\ (COMBINED)$ into accrual-based earnings management regressions (8) and respectively inclusion of AEM proxy ABS_DA_{it} into real earnings management regressions (9).

Models 1, 2, 3 are used to answer the research question number one, which intends to qualify the nature of relationship between EM and CSR. In turn, Models 2 and 3 provide the empirical data necessary to answer the second research question, which is interested in whether the type of earning management has an influence upon the nature of the relationship between EM and CSR.

5 Results

This chapter presents and discusses the results of the empirical part of this master thesis. Firstly, are presented descriptive statistics and correlation matrix, which provide the overview for this empirical investigation. It is followed by the presentation of the regression results. Regression results are presented separately for each empirical model considered in the section 4.3.

5.1 Descriptive statistics and univariate analysis

Table 3. shows this study's firm years' distribution by the industry. It should be noted that the table comprises of firm years of main processing period between years 2015-2018. It is opposed to the total period of 2013-2018 used in this investigation as required for the replication of all necessary research steps (e.g., composition of the variables reflecting change). Presented industries are displayed according to classification used by exchange NASDAQ OMX Helsinki. It can be observed that the largest category comprises of industrial companies, which constitute slightly over 44 % of the sample. Other industries composing a considerable share of the sample are Basic Materials (15,05 %), Consumer Services (10,75 %) and Health Care (8,60 %).

Table 3. Distribution of Firm-Year Observations by Industry

Industry	№ of Obs.	% of sample
Basic Materials	14	15,05 %
Consumer Goods	4	4,30 %
Consumer Services	10	10,75 %
Health Care	8	8,60 %
Industrials	41	44,09 %
Oil & Gas	4	4,30 %
Technology	4	4,30 %
Telecommunications	4	4,30 %
Utilities	4	4,30 %
Total	93	100,00 %

In turn Table 4. unfolds the annual distribution of the components of CSR variable and provides the setting for the review of the possible trends. Presented values indicate that governance is the least developed CSR dimension taking on average the worse score compared to other dimensions throughout the whole review period. Presented governance values range from the upper limit of satisfactory to lowest limit of good ESG performance. However, in case of governance score it can be noticed the trend of upward development. On the other hand, the score values of the rest of dimensions fully belong to the category of good ESG performance. In addition, only in case of social dimension is observable the analogous increasing trend as in the case of governance dimension. In turn, the score of environmental dimension has undergone a slight the rise during years 2016 and 2017 and subsequently has returned to the level of 2015.

It is worth admitting that the relative lowness of governance score naturally impacts the total magnitude of combined ESG score. Nevertheless, the difference between the dimensions' values is not extremely substantial and thus it can be argued that the combined ESG score can be used conveniently as holistic proxy of companies' CSR performance.

Table 4. Dimensions' distribution of CSR variable

		Dimensions of CSR variable			
Year	№ of Obs.	Environment	Social	Governance	CSR total score
2015	21	66,376	64,930	47,608	59,891
2016	21	67,348	65,737	47,748	60,803
2017	23	67,950	67,924	49,312	60,528
2018	28	66,377	68,831	51,948	60,818

Table 5. presents the descriptive statistics for the sample, i.e., means, standard deviations, and minimum and maximum values. From the provided statistics can be observed that the average value of CSR variable during the whole review period is 60,53 (good) and that the range on this variable's values in the given sample is

between 21,76 (poor) and 88, 82 (excellent). The scale of CSR variable is between 0 and 100.

As was stated earlier this master thesis intends to consider both signed and absolute discretionary accruals. Out of the total sample of 93 firm years 47 has been disclosed to possess positive discretionary accruals, whereas the rest 46 has been indicated to be associated with negative discretionary accruals. According to Table 5. sample's average positive discretionary accruals constitute 0,4401, while negative discretionary accruals' corresponding value is -0,4114.

Table 5. Descriptive statistics of selected variables

	№ of Obs.	Mean	Min	Max	SD
CSR	93	60,5334	21,7600	88,8200	13,1837
ABS_AEM	93	0,0302	0,0005	0,1066	0,0239
POS_DA	47	0,4401	0,1153	0,9158	0,0209
NEG_DA	46	-0,4114	-0,9666	-0,1278	0,0244
AB_CFO	93	0,0000	-0,1698	0,1911	0,0656
AB_PROD	93	0,0000	-0,5798	0,2945	0,1321
REM_COMB	93	0,0000	-0,3716	0,4918	0,1583
Size	93	1,0038	12,8369	17,4842	1,0038

In addition, following Kim et al., (2012) this study compares the level of earnings management proxies of CSR and Non-CSR companies. Aforementioned comparison is presented in the Table. 6. This investigation assumes that firm-years having ESG score greater than 50 and thus classified as good and excellent CSR performers belong to a group of 'CSR' companies. In turn, firm-years at which ESG score has been less or equal 50 are assigned to 'Non-CSR' class. From the Table. 6. It can be observed that over the half of the companies, i.e., 73 out of 93 firm-years belong to CSR companies. In turn, Non-CSR companies constitute slightly less than 25 % of the sample. Following subgroups' testing using T-test has been omitted as it would not produce valid results due to unbalanced research design. Namely, the output of the t-test for these samples would have high sensitivity to heteroskedasticity.

It can be observed that from the mean values of AEM variable that on average Non-CSR companies tend to exhibit income-increasing accruals, while CSR companies demonstrate income-decreasing accruals, i.e., 0,0016 in case of Non-CSR and -0,0004 for CSR companies. In turn, while considering the magnitude of discretionary accruals utilization, (i.e. ABS_AEM) it can be noticed that it is greater in Non-CSR companies than in CSR companies, i.e., 0,0393 for Non-CSR and 0,0277 for CSR samples. In addition, Table 6. reports that the mean value of combined measure of REM is lower for Non-CSR than for CSR companies, i.e., -0,0291 for Non-CSR and 0,0080 for CSR. This result can be interpreted as CSR companies employ REM less than Non-CSR companies. Such output is in line with the ethical hypothesis of the relationship between CSR and EM.

Table. 6. Descriptive Statistics by CSR versus Non-CSR Firms

	Mean	
	Non-CSR	CSR
AEM	0,0016	-0,0004
ABS_AEM	0,0393	0,0277
POS_DA	0,4552	0,4365
NEG_DA	-0,4101	-0,4118
REM_combined	-0,0291	0,0080
CSR	42,8985	65,3649

Table 7. reports correlation coefficients for variables used in this empirical study. Firstly, the analysis of the correlation matrix shows that there is a high correlation positive between variables REM_COMB and AB_CFO and high negative correlation between variables REM_COMB and AB_PROD. The aforementioned correlations are mechanical, because as was elaborated in chapter 4 variables REM_COM has been constructed by aggregation of these REM proxies. Moreover, Table. 7. demonstrates that CSR variable is negatively correlated with the absolute metrics of accrual earnings management (-0,1185) and positively correlated with combined metrics of real earnings management (0,0091). Such indicators may signify that

companies with better CSR performance are less likely to engage earnings management activities.

Table 7. Correlations among CSR Score and Earnings Management Proxies

	CSR	AEM	ABS_AEM	AB_CFO	AB_PROD	REM_COMB
CSR	1					
AEM	0,0315	1				
ABS_AEM	-0,1185	0,0699	1			
AB_CFO	-0,1144	-0,0441	-0,0683	1		
AB_PROD	-0,0677	-0,1390	-0,0744	-0,1899	1	
REM_COMB	0,0091	0,0978	0,0338	0,5730	-0,9135	1

5.2. Regression results

In this section are presented regression results from the models, which has been dentally presented in section 4.3. Unlike majority of the prior research, which have utilized the cross-sectional ordinary least square regression, in this master thesis the models have been estimated using the pooled ordinary least square regression. Pooled regression has been chosen due the small size of samples.

5.2.1 Overall relationship between CSR and EM

Table 8. demonstrates the results of the regression of the model 1, which evaluates the relationship between total measure of earnings management (EM) and company’s corporate social responsibility performance (CSR). Regression results suggest that there is no association between these variables. Furthermore, the coefficient of CSR is low. However, judging by aforementioned coefficient’s negative value -0,0008 it can be presumed that CSR impact negatively the use frequency of earnings management. In other words, the better is firm’s CSR score, the less likely

it engages in earnings management. Similar, but however statistically significant results regarding the inverse relationship between overall earnings management practices and companies' CSR success level have been obtained by e.g., Choi et al., (2013) and Scholtens (2013).

Table 8. Regression results, CSR vs EM

	Model 1
	EM Coefficient (t-stat)
CSR	-0,0008
	(-0,4649)
Size	0,01786
	-0,7769
Intercept	-0,2181
	(-0,7508)
Adj. R-sq	-0,0154
Significance F	0,74
N	93

5.2.2 The Relation between CSR performance and accrual earnings management

Table 9. presents the results of the regression of the model 2, which purpose is to evaluate the relationship between corporate social responsibility and earnings management using discretionary accruals. This model is repeated three times using different AEM proxies: absolute value of discretionary accruals (ABS_DA) in the model 2/A, positive discretionary accruals (POS_DA) in the model 2/B and negative discretionary accruals (NEG_DA) in the model 2/C.

Low coefficients as well as low or even negative adjusted R-squared values in the Table 9. suggest that model 2 lacks explanatory power. Furthermore, the majority of the coeffects are statistically insignificant. However, certain relations among variables can be marked. Coefficient of the model 2/A (-0,0002) indicate that CSR performance impact negatively the magnitude of accrual earnings management. This result corresponds with the outcomes of the model's replication using signed discretionary accruals. Specifically, the output of the model 2/B (-0,0003) demonstrates CSR's statistically insignificant negative relationship with POS_DA. This may suggest that the better is company's CSR performance, the less likely it engages in managing accruals with the aim of increasing the income. In addition, 2/C model's coefficient (0,0001) demonstrate the statistically insignificant positive relationship between CSR and negative discretionary accruals. In other words, it may indicate that the greater is the level income minimizing AEM, the lower is the level of firm's commitment to socially responsible actions. Described negative association between accrual earrings management and CSR is consistent with the results of the correlation matrix discussed in the section 5.1.

In addition, the regression results of all three versions of model 2 report weak positive association between company size and accrual earnings management. It possibly may suggest that bigger companies tend to engage more in AEM. This results contradict the results of inter alia Kim et al., (2012), Jordaan (2018) and Moratis (2018), but are analogous to the one obtained by Bozzolan et al., (2015).

In general, the directions of CSR coefficients presented in the Table. 8. are in line with ethical hypothesis of the relationship between CSR and EM, which has been described in section 3.3.1. The ethical hypothesis advocating in favor of the negative relationship between CSR and EM, has been supported by the prior research, i.e., Chih et al., (2008), Kim et al., (2012), Choi et al., (2013), Scholtens (2013), Cho & Chun, (2016), Liu (2017) and Almahrog (2018) have found indications regarding CSR's negative influence upon AEM's utilization level.

Table 9. Regression results, CSR vs AEM

	Model 2/A	Model 2/B	Model 2/C
	ABS_DA Coefficient (t-stat)	POS_DA Coefficient (t-stat)	NEG_DA Coefficient (t-stat)
CSR	-0,0002	-0,0003	0,0001
	(-1,0111)	(-0,8553)	-0,1542
REM_COMB	0,00555	-0,0255	-0,05062**
	(-0,3477)	(-1,3844)	(-1,8233)
Size	0,00067	0,00125	0,00154
	-0,2086	(-0,2961)	-0,3189
Intercept	0,03512	0,02725	-0,05613
	-0,8621	(-0,5246)	(-0,9097)
Adj. R-sq	-0,0174	0,01009	0,0159
Significance F	0,7	0,34	0,31
N	93	47	46
** indicates statistical significance at the 10% level			

5.2.3 The Relation between CSR performance and real earnings management

Table 10. reports the results of the regression of the model 3, which purpose is to evaluate the relationship between corporate social responsibility and earnings management related to real activities. Aforementioned model has been replicated multiple times using different REM proxies: combined measure of real earnings management (REM_COMB) in the model 3/A, abnormal operating cash flows (AB_CFO) in the model 3/B and abnormal production (AB_PROD) in the model 3/C.

The results of the model 3 replications likewise model 1 and 2 lack explanatory power due to low coefficients and statistical insignificance. Thus, obtained results do not indicate any strong relationship among variables and only the directions of the relationship between independent and dependent variables can be discussed. CSR coefficient in model 3/A, which utilizes the combined REM measure, is positive (0,00094). This relationship direction suggests that CSR may constraint the level of

REM utilization among managers. Resembling result are observable also from the CSR coefficient of the model 3/C, i.e. (-0,00147) statistically insignificant negative relationship between CSR and AB_PROD variable may infer that CSR companies tend to manage earnings less through manipulation of production level. Similar results regarding the CSR's negative impact upon the level REM utilization have been supported by e.g., Hong (2011), Kim et al., (2012) and Bozzolan et al., (2015). These academic works have argued that the negative relationship between CSR and REM can be explained by inter alia the inferences that as REM is known to affect negatively financial performance, CSR companies refrains from it as it would contradict their CSR related resolutions.

However, the coefficient of the model 3/B (-0,00147) dealing with sales manipulation contradicts the results from other two replications of the model 3. Namely, negative statistically insignificant relationship between variables CSR and AB_CFO may on the contrary suggests that CSR companies engage more in REM via manipulation of operating cashflows. Nonetheless, it is worth noting that this coefficient is very low, which indicates the extreme weakness of the outlined association. Such conflicting result of the analysis of REM_COMB's, AB_CFO's and AB_PROD's association with CSR emphasizes the importance of the individual consideration of real earnings measures. Otherwise, it may lead to production of invalid inferences, in which the actual nature of the relationship is concealed, because of the possible dominating impact of the one of proxy components.

In addition, from the Table 10. can be observed that model 3/A's ABS_DA coefficient is positive (0,24441), whereas model 3/C's ABS_DA coefficient is negative (-0,47054). This result indicates the negative statistically insignificant association between both combined REM and abnormal production proxies and accrual earnings management. This result is consistent with results of such studies as Graham et al., (2005), Cohen (2008) and Kim et al., (2012) supporting the substitutive association between AEM and REM.

Table 10. Regression results, CSR vs REM

	Model 3/A	Model 3/B	Model 3/C
	REM_COMB Coefficient (t-stat)	AB_CFO Coefficient (t-stat)	AB_PROD Coefficient (t-stat)
CSR	0,00094	-0,0005	-0,00147
	-0,5781	(-0,7781)	(-1,0823)
ABS_DA	0,24441	-0,2261	-0,47054
	-0,3477	(-0,7812)	(-0,8064)
Size	-0,0164	-0,002	0,01444
	(-0,7700)	(-0,2264)	-0,8152
Intercept	0,1814	0,06828	-0,11312
	-0,67	-0,6124	(-0,5033)
Adj. R-sq	-0,0255	-0,0126	-0,01426
Significance F	0,87	0,6	0,64
N	93	93	93

6 Conclusions

This chapter presents the conclusion of this master thesis, answers the research questions and reviews critically the conducted research. Critical review is performed by discussing of limitations, suggesting of possible improvement ideas and proposing of further research approaches.

6.1 Discussion of the regression results

This master thesis aimed to evaluate the relationship between earnings management practices and corporate social responsibility performance. The prior research related to aforementioned subject has produced mixed empirical evidence, namely there is not a consensus among academics regarding the nature of the association between CSR and EM. This study intended to contribute the subject's research by providing additional empirical evidence related to CSR-EM relationship. In addition, this investigation purposed to enrich the research field by conduction of investigation, which takes a holistic approach to consideration of earnings management. In other words, unlike the majority of earlier conducted studies, which has used solely accruals as proxy of EM, this master thesis has utilized accruals, real activities' manipulation (i.e., sales manipulation and inventory overproduction) as well as combined earnings management proxy. Furthermore, this investigation has been motivated by production of more modern empirical evidence regarding the EM utilization among Finnish companies, as major part of EM studies in Finnish context has been conducted prior to IFRS accounting standards have become mandatory for listed companies.

Hereafter this master thesis attempts to answer the main research question as well as the sub-question, which have been defined in the introduction chapter and have supported the conduction of the research process.

The main research question is:

What is the nature of relationship between EM and CSR?

Models 1, 2 and 3 have been performed and analyzed to be able to answer this question. The results indicate that there is a negative relationship between earnings management and corporate social responsibility. Similar result is noticeable despite using three different earnings management proxies, i.e. combined earnings management, real earnings management and accrual earnings management. In other words, obtained empirical data suggests that companies with good CSR performance are less likely to engage in any form of earnings management. Such outcome indicating the negative association between CSR and EM is in line with the ethical hypothesis discussed in the section 3.3.2. As has been outlined earlier ethical hypothesis of the relationship between CSR and EM advocates that companies committed to corporate social responsibility and sustainability tend to act in accordance with CSR norms driven by inter alia the fear to harm own corporate reputation by unethical accounting methods. Other academic papers such as ones by Chih et al., (2008), Kim et al., (2012), Choi et al., (2013), Scholtens (2013), Cho & Chun, (2016), Liu (2017) and Almahrog (2018) similarly have found indications regarding CSR's negative influence upon EM use. Based on the above presented the answer to the main research question is that there is a reverse nature of the relationship between EM and CSR.

In turn, the sub-question utilized in this research is:

Does the type of earning management has an influence upon the nature of the relationship between EM and CSR?

Models 2 and 3 have been designed specifically in order to answer this research question. As was just commented in the section answering the main research question this master thesis has concluded that regardless of the earnings management type, there is a negative association between earnings management and corporate social responsibility performance. In addition, no material magnitude difference has been indicated during the analysis of the AEM-CSR and REM-CSR relationships. Thus, the answer to the complementing research question is that the type of earning management has no influence upon the nature of the relationship between EM and CSR. Resembling observations have been obtained by Kim et al., (2012), while Bozzolan et al., (2015) and Jordaan (2018) on the contrary have indicated that the relationship between EM and CSR varies depending on EM type.

Overall, the obtained result supports the standpoint according to which financial transparency and pursuit to serve to producing financial reports serving stakeholders' interest can be considered as a common attribute of the companies dedicated to CSR.

Among the possible practical implications of this master thesis's findings are implications related to authorities, executives as well as academicians. Firstly, the insights of this master thesis may motivate policymakers to proceed supporting the development of CSR frameworks and legislation inspiring companies to engage in CSR reporting activity. Secondly, managers may apply the perceptions provided by this research in order to improve the quality of the produced financial reports via engagement into business operation in accordance with CSR norms. Such strategic change may be beneficial for their firms in terms of improved reputation and trustworthiness among investors. In turn, academics may utilize the results obtained in this master thesis for the further research, which will attempt to understand further the peculiarities of the relationship between earnings management and corporate social responsibility.

6.2 Limitations and research suggestions

Among the limitations of this master thesis are issues related to the choice of CSR proxy to measure companies' corporate social responsibility performance. Despite that Thomson Reuters Eikon's ESG combined score has been used by prior research as a measure of CSR performance, it is worth to acknowledge that it may fail to capture efficiently the CSR attributes. For instance, as ESG combined score is developed using the data both from corporate and public sources, there may be a risk of selection bias. Thus, this circumstance should be taken into account during results' interpretation. In addition, it should be admitted that the validity of ESG combined score is questionable, as its measurement mostly takes into consideration CSR initiatives undertaken by organizations. Thus, this CSR measure does not tell anything about companies decreasing the negative impact of their operations upon environment and society. Future research may aim to develop improved CSR proxy, which would possess better validity. One possible option to improve the validity of CSR measurement is the utilization of multiple CSR proxies either simultaneously or by comparing of their efficiency by placing them into the same empirical model in turn. Furthermore, the valuable insights regarding CSR-EM relationship could possibly be obtained by the analysis differentiating each CSR dimension’s influence upon EM.

In addition, it is worth to question the ability of chosen EM proxies to translate the complete picture of earnings management utilization in the companies. Although this master thesis decided to focus only on AEM, REM and their combination measure, there number of other EM approaches used in the corporate environment such as income smoothing and earnings aggressiveness. Incorporation of these EM methods into estimation model dealing with the relationship between CSR and EM, may be reasonable direction for further research, as it may produce new insights and broaden the understanding of the issue. Furthermore, succeeding studies may seek to improve the models for estimation of EM proxies, which has been utilized in this investigation, i.e., AEM (Dechow et al.,1995) and REM (Dechow et al.,1998). These proxies possess a number of limitations and have faced with the critique (Moratis, 2018) Also, in relation to chosen EM measures it would be sensible not to limit the consideration of REM to two proxies (AB_CFO, AB_PROD) as was done in this master thesis,but extend it to three proxies by adding the measure of discretionary expenses, which is among the central REM approaches.

Furthermore, the significant limitation of this master thesis is the size of the sample. The sample size could be increased by either changing of the focus from Finnish to North European listed companies or by extension of the period under review to at least ten years. This would affect positively upon the generalizability of the results.

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