Erasmus School of Economics
Section Accounting, Auditing and Control

Corporate Social Responsibility And Financial Performance:

An Empirical Analysis on EU's top fifty Listed Companies

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DEDICATION

My family has sustained me through many transitions in my life but my father, mother, brother, sisters, and brothers in law, deserve the deepest gratitude for being there every step of the way. My father had faith in me when I doubted and was my daily cheerleader and drill sergeant when it was hard to continue. I dedicate this study to my father, mother, sisters and brother who made this success possible.

ABSTRACT

Currently, the issue of Corporate Social Responsibility (CSR) becomes increasingly important. The growing trend of CSR becomes an interested challenge for companies and their management. There is an integration of positive attitudes, practices, or programs into company's business strategy at the top management level. For companies and their management it is important to know if CSR activities lead to financial benefits. The purpose of this research is to investigate if CSR has an association with financial performance (FP) of the top fifty listed companies from the European Union (E.U.).

The different theories are examined which support a possible linkage between CSR and FP. Furthermore, some prior researches will be examined which focuses possible on the association between CSR and FP. Then one accounting-based measure and one market-based measure are used to measure the FP of the selected sample companies. With these measures and six control variables (risk, firm size, industry, R&D intensity, GRI, and assurance big 4), the empirical research is conducted on a sample of top fifty listed companies from the E.U. that produce a standalone CSR report or a sustainability report or published a section in its annual report. Through a score measurement of Global Reporting Initiative (GRI) application level the CSR performance is measured of the top fifty listed companies from the E.U. To test the developed hypothesis two regression models are applied in SPSS (Statistical Package for Social Sciences). The results suggest that there is a positive association between CSR and FP for the top fifty listed companies from the EU using accounting-based measure ROA. However, there is no association between CSR and FP for the top fifty listed companies from the EU using market-based measure EPS.

Keywords: Corporate Social Responsibility (CSR), Financial Performance (FP), Disclosures, Return on Assets (ROA), Earnings per Share (EPS), Reporting, European Union (E.U.).

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GLOSSARY

This is a listing of definitions of some terms used in this thesis.

Corporate Social Responsibility (CSR) is the commitment of business to contribute to sustainable economic development – working with employees, their families, the local community and society at large to improve the quality of life, in ways that are both good for business and good for development (Ward, 2004).

Financial Performance (FP) is the process measuring the results of a firm's policies and operations in monetary terms (conceptual framework)[1].

Earnings per Share (EPS) is a company's profit divided by its number of common outstanding shares[2].

Return on Assets (ROA) tells how much profit a company is able to generate for each euro of assets invested (Krishna G. Palepu, Paul M. Healy, and Erik Peek, 2013).

Sustainability Report (SR) is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities[3].

[1] http://shodhganga.inflibnet.ac.in/bitstream/10603/705/11/12_chapter3.pdf
[2] http://www.nasdaq.com/investing/glossary/e/earnings-per-share
[3] https://www.globalreporting.org/information/sustainability-reporting/Pages/default.aspx

LIST OF ABBREVIATIONS

AR	Annual Report
AL	Application Level
CEP	Corporate Environmental Performance
CFP	Corporate Financial Performance
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
EPS	Earnings per Share
EU	European Union
FP	Financial Performance
GRI	Global Reporting Initiative
KLD	Kinder, Lydenberg, and Domini index
OLS	Ordinary Least Squares
PAT	Positive Accounting Theory
PSS	Point Score System
R&D	Research and Development
ROA	Return on Assets
ROE	Return on Equity
ROS	Return on Sales
SD	Sustainable Development
SP	Social Performance
SPSS	Statistical Package for Social Sciences
SR	Sustainability Report

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1. INTRODUCTION

1.1 Introduction to CSR

In the last decade, there was an increasing emphasis on Corporate Social Responsibility (CSR) activities around the world (Dhaliwal, et al., 2011). Stakeholders as customers, employees, social groups, NGO's (Nongovernmental Organizations), providers of goods and services, governments and shareholders have stimulated companies to invest in CSR. Many companies have responded positively to implement CSR and to offer their products and services in a responsible way (McWilliams, et al., 2000). Furthermore, companies began to report about their ethical, social en environmental behavior. There are several definitions of CSR. One of these definitions is: *"the commitment of business to contribute to sustainable economic development – working with employees, their families, the local community and society at large to improve the quality of life, in ways that are both good for business and good for development"* (Ward, 2004, p.3).

According to Dhaliwal et al. (2011) the disclosure of a standalone CSR report subsequently lowers the cost of equity capital. A standalone CSR report can be defined as follow: an annual standalone CSR report encompasses overall the social and environmental information about a company (Yu, et al., 2013).

CSR disclosures are used for several purposes. One of them is that investors use these disclosures for forecasting purposes. Investors are interested in the company's future Financial Performance (FP) for their investment decisions. For example companies with excellent or high quality CSR reports have several benefits like cost reduction of their operations, particularly increasing efficiency, communication tool with stakeholders, and benefits to the capital market. Banks are interested to give loans to companies with a good CSR report (Dhaliwal, et al., 2012).

In contrast, companies that do not produce CSR reports can be confronted with problems like bad reputation about the company to the extent of damage of the FP. Werther and Chandler (2006) pointed out the consequences of the Greenpeace protest against Shell in June 1995. The reason for this protest was that Shell has dumped an oil platform in the Atlantic Ocean. The consequence of this was that Shell's sales decreased with a large percentage (Dhaliwal, et al., 2012).

1.2 Research question

Many studies were performed concerning the relationship between CSR and FP (McGuire, et al., 1988; Waddock et al., 1997; McWilliams and Siegel, 2000; Moore, 2001; Orlitzky et al., 2003; Aras, et al., 2010). Some of these studies have reported a positive association between CSR and FP. Studies of McGuire, et al. (1988); Orlitzky et al. (2003); Waddock et al. (1997); Chin-Huang et al. (2009); Ahamed et al. (2013) reported a positive association between CSR and FP. McGuire, et al. (1988) found that CSR is better predicted by FP and CSR helps reducing company's risk. Waddock et al. (1997) explain that there is a positive association between CSR and prior FP and also from the opposite. Orlitzky et al. (2003) found a strong correlation between CFP and corporate social/environmental performance. Another study done by Ahamed et al. (2013) found a positive association between companies FP and CSR activities. Other studies reported a neutral association between CSR and FP. Study of Aras et al. (2010) found no association between CSR and FP. McWilliams and Siegel, (2000) found that CSR has a neutral effect on FP. Finally, Nelling and Webb (2009) reported that there is no evidence that CSR affects a company's FP. However, the study of Moore (2001) reported that there is a negative association between CSR and FP. Moore (2001) found that supermarket industry which suggest that contemporaneous social and FP are negatively related.

These contradictory results lead to add new empirical research to the relation between CSR and FP. A lot of studies concentrated in the past on organizations in Taiwan (Chin-Huang et al., 2009), the United States (Scholtens, 2008), Turkey (Aras et al., 2010), Malaysia (Ahamed et al., 2013) and Greece (Karagiorgos, 2010). In this research the association between CSR and FP will be investigated for the top fifty listed companies from the EU. Consequently, the main research question of this study is:

"Is there an association between CSR and FP of the top fifty listed companies from the EU?''

The purpose of this study is to investigate whether there is an association between CSR and FP of the top fifty listed companies (selected by highest turnovers) from the EU. If so, which direction does this association have? For this study, the data of the top fifty listed companies from the EU are used. In order to answer the main question, the following sub questions are developed.

- What is the background information of CSR and how is FP measured?
- Which theories can explain CSR?
- What is the prior research focusing on this topic?
- What are the developed hypothesis and the research design, which will try to give an answer on the research question?
- What is the outcome of this research?
- What is the interpretation and analysis of the outcome of this research?
- What is the conclusion of this research?

1.3 Research Methodology

This paper, as mentioned earlier, focuses on the association between CSR and FP of the top fifty listed companies from the EU. In this study the quantitative research method is used. The aim of quantitative research is to test the hypotheses via data. Therefore data is needed to measure CSR and FP. Quantitative research, which in this research exists out of analysing the sample population via descriptive statistics and regression analysis. Next, to measure the FP of the top fifty listed companies the following two methods will be used. First, accounting based measures and second stock-market based measures. According to the debate in previous studies about the proper measure of FP, in this research both methods will be used. For the analysis where FP is the dependent variable, the profitability dependent variable Return on Assets (ROA) will be used as an accounting based measure. Market-to-Book ratio (MTB) will be used as a second dependent variable to measure FP (McGuire, et al., 1988). These types of FP measuring is also used in relating studies for example Pava and Krausz (1996); Orlitzky et al. (2003). In this current study CSR performance will be measured by CSR or sustainability reports that contain an Application Level (AL) of the GRI framework. The study of Karaibrahimogly (2010) used also this type of CSR measuring. The association between CSR and FP of the top 50 listed companies from the EU is tested for the years 2009 till 2013.

1.4 Motivation

I choose specifically for the top fifty listed companies from the EU, because of lack of research on this topic. As mentioned in paragraph 1.2 on page 12 of this thesis many scholars investigated the association between CSR and FP in different countries and uses different samples. In this research it is relevant that I will investigate this association for the top fifty

listed companies from the EU. There is a growing environmental awareness in our society, which pressures all listed companies to operate social responsible. As the world adjusts to using fewer resources, the ability to contribute to the creation of a more sustainable global economy comes with an obligation to act. In recent decades for example the airline industry has been pressured into reducing their negative environmental effects. Consequently, airline companies are focusing on reducing emissions and aircraft noise (Cowper-Smith & de Grosbois, 2011).

1.5 Relevance

1.5.1 Scientific relevance

This study makes several contributions to the existing body of knowledge on the association between CSR and FP of the top fifty listed companies from the EU. Next, this study contributes to the results of previous studies by supporting a better understanding of the association between CSR and listed companies' FP. This is the first study that would examine the association between CSR and FP of the top fifty listed companies from the EU. Finally, the outcome of this study can contribute to the literature of CSR from the perspective of EU listed companies.

1.5.2 Practical relevance

The outcome of this research can help to bring new perspectives for stakeholders in the practice. If there is an association between CSR and FP the following groups have benefits. Executives, managers, employees, regulators, and auditors can use the information to make better decision. Next, it increases the understanding of the association between CSR and FP of listed companies. Furthermore, protecting the environment can lead to more productivity and this will attract more investors to buy shares in listed companies.

1.6 Limitations

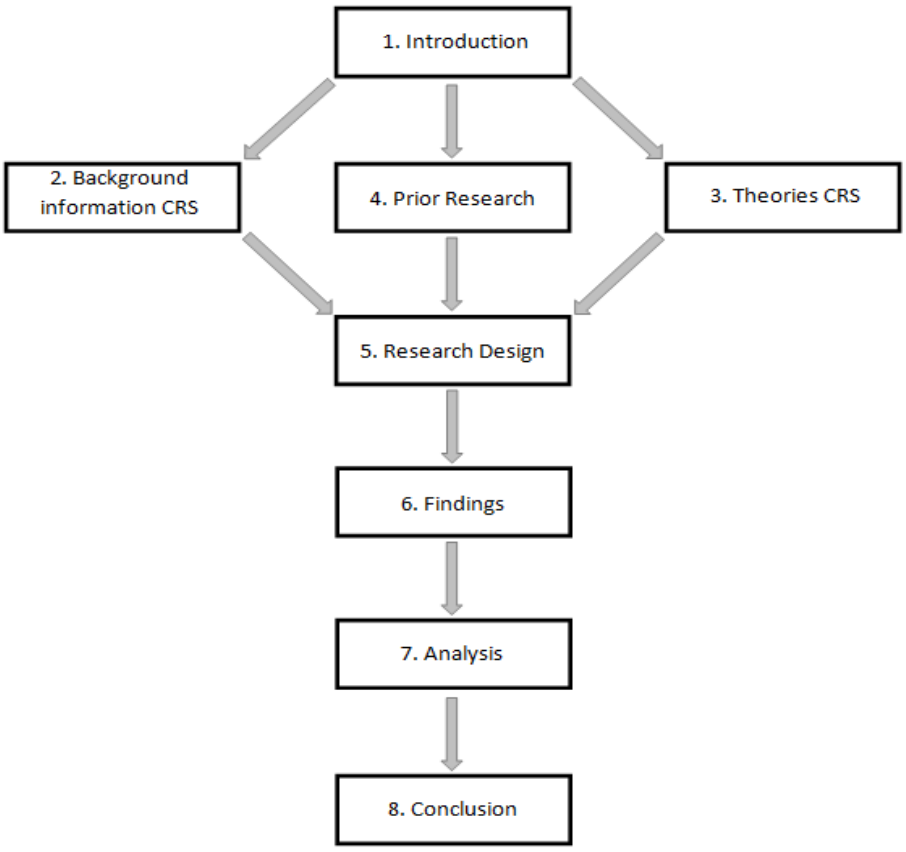
This study tries to find an association between CSR and the FP of the top fifty listed companies of the EU. This study suffers from some limitations. The first one is that this study is focusing only to the top fifty listed companies in the EU selected by the highest turnovers. Second, this study focuses on EU setting consequently the external validity is low. The results cannot be generalized to other population outside the EU for example for U.S. listed companies. External validity is defined as *"the extent to which the results of a study can be generalized to and across populations, settings, and times''* (Johnson and Christensen, 2000,

p. 200). The last limitation of this study is the measurement method for CSR performance. As stated in paragraph 1.3 on page 13, only data from companies are accepted in the sample which reports through the GRI framework.

1.7 Structure

Chapter 1 focuses on the introduction, research question, sub questions, motivation, relevance, limitations, and the structure of the thesis. The next chapter discusses the background information of CSR. This chapter gives answer on the first sub question. Chapter 3 describes the theories which explain CSR. The second sub question is answered in this chapter. Chapter 4 is about the overview and review of prior research of the association between CSR and FP and answered sub question 3. Sub question 4 is answered in chapter 5 and contains the research design. Chapter 6 contains the findings of the research. This chapter answered sub question 5. Chapter 7 describes the analysis of the findings of the research and gives answer on sub question 6. Finally, in chapter 8 the conclusion, and suggestions are presented and answered sub question 7. The structure of the thesis is given in figure 1.

Figure 1 Structure thesis



2. BACKGROUND INFORMATION OF CSR

2.1 Introduction

This chapter describes the background information of CSR and provides answer to the first sub question. In paragraph 2.2 the definition of CSR is discussed. Paragraph 2.3 discusses about disclosure in general and paragraph 2.4 continuous with voluntary disclosure. Paragraph 2.5 discusses CSR reporting. Paragraph 2.6 is about the measurements of CSR and paragraph 2.7 discusses CSR reporting guidelines. Paragraph 2.8 discusses the economic consequences of CSR disclosure. Paragraph 2.9 describes the FP measures. Finally, a summary paragraph is provided at the end of the chapter.

2.2 Definition of CSR

CSR exists for a long time, already before World War II. The roots of the current CSR can be traced to the period 1945-1960 (Spector, 2008). In the seventies a proliferation of the definitions of CSR started and CSR became the center of discussions. The nineties and the 2000's became the era of global corporate citizenship (Frederick, 2008). CSR for the business branch became an important subject during this period. There was a strong attention with sustainability and the development of it. This is why it developed to an important part of the CSR discussions.

As mentioned earlier in the current study CSR has a long history. Especially, Carrol (1999) mentioned that CSR exists earlier than decennia's ago and the definitions in these recent years are more developed and described. For example the following features like areas, categories, and dimensions are more elaborated. According to the study by McWilliams et al. (2006) they explained CSR by defining it with four categories. They developed this as follow:

"CSR activities have been posited to include incorporating social characteristics or features into products and manufacturing processes (e.g., aerosol products with no fluorocarbons or using environmentally-friendly technologies), adopting progressive human resource management practices (e.g., promoting employee empowerment), achieving higher levels of environmental performance through recycling and pollution abatement (e.g., adopting an aggressive stance towards reducing emissions), and advancing the goals of community organizations (e.g., working closely with groups such as United Way)." (McWilliams et al., 2006, p. 3).

Existing literature focuses on different definitions of CSR. According to Boeger (2008), they explained that there is no internationally accepted single definition of CSR. Though there are some kinds of interaction between these definitions of CSR. Elaborating more on this topic showed that some of the definitions of CSR encompass the FP, others pay more attention on the environmental performances, and finally there are some which encompasses the social performances. The social performance provides information about company's interaction with, and associated impacts on, its social environment. Next, the environmental performance focuses more on the communication of environmental performance by an organization to its stakeholders. These three performances are often used in CSR theories, defined as the Triple P bottom line. Elkington (1994) argued that an organization has three main responsibilities: people, planet and profit. An organization is responsible for its employees, environment and economic stability. The triple bottom line provides information about the economic, environmental, and social performance of an organization.

According to Moir (2001), explained that CSR consist in the following six parts: community, environment, marketplace, workplace, ethics and human rights. CSR in the marketplace is mostly concentrating on suppliers and customers. Baker (2003) described workplace as the kind of issues that a company should engage in. It includes all the parts of the human resource department. Newell (2005) mentioned that communities can be seen as an important segment of the CSR strategy, especially if communities are not developed. CSR in environment can be accomplished by reducing the ecological footprint. The ethical part consists of norms and values. Discrimination, trade union rights, and child labor have to do with human rights (Moir, 2001).

As mentioned earlier in this paragraph about the existence of many CSR definitions. Dahlsrud (2008) examined which CSR definition was used most by measuring which definition had the highest frequency in Google. The results were implication of 37 definitions from European and American origin between 1980 till 2003. The outcome of the study of Dahlsrud (2008) was that the CSR definition of the Commission of the European Communities (2001) was the most used definition and therefore may be considered as most accepted. They define CSR as follows:

"Corporate social responsibility is a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholder on a voluntarily basis." (Commission of the European Communities, 2001 p. 6).

The above stated definition encompasses five dimensions. The five dimensions are: environmental, social, economic, voluntariness, and stakeholder (Dahlsrud, 2008). The voluntariness dimension refers to the fact that actions are not prescribed by regulation and law. The stakeholder dimension is discussed in sub paragraph 3.4.2 on page 32. In the next paragraph the CSR reporting is discussed.

2.3 Disclosure

This paragraph discusses about disclosure in general. The Positive Accounting Theory (PAT) discussed in paragraph 3.2 and the Agency theory discussed in paragraph 3.3 are in general the incentives for disclosures. Information-asymmetry exists when some groups in case of business transactions have an information advantage over the other groups. There are two types of information asymmetry: adverse selection and moral hazard (Scott, 2014). Adverse selection is *"a type of information asymmetry whereby one or more parties to a business transaction, or potential transaction, have information advantage over other parties"* (Scott, 2014, p. 21). The information-asymmetry exists between the managers of the company and the stakeholders. Managers have more accurate information, because managers make decisions for the continuity of the organization. However, stakeholders are outside party which does not have all the information about the company. Moral hazard is *"a type of information asymmetry whereby one or more parties to a business transaction, or potential transaction, can observe their actions in fulfillment of the transactions but other parties cannot"* (Scott, 2014, p. 22). For example shareholders or creditors cannot observe directly the quality of managers. Disclosure can reduce the information-asymmetry that exists between the managers and its stakeholders. In this study the focus is more about the disclosed information that is provided by the managers to the public.

Armitage et al. (2008) define disclosure as *"the provision of information of all types by a company, both to the public at large and to restricted groups of information users"* (Armitage et al., 2008, p. 315). Information is provided for decision making purposes. Companies disclose much more information if the expected advantage is higher than the costs (Urquiza et al., 2010). Companies disclose different kinds of information to the public. Some of the information users are for example: present and potential investors, customers, suppliers, lenders, employees, governments, the local community, parties performing a review or oversight function, and the media (Deegan et al., 2006, p. 32).

There are three types of disclosures. The first type of disclosure that is provided by companies is the regulated financial reports. These regulated financial reports include the financial statements, footnotes, management discussion and analysis, and other regulatory reports. This type of disclosure is known in the literature as the mandatory disclosure. Popa et al. (2008) defines mandatory disclosure as *"those aspects and information which must be published as a consequence of the existence of some legal or statutory stipulations, capital markets, stock-exchanges commissions or accounting authorities regulations"* (Popa et al. 2008, p. 1408). The second type is the so called voluntary reports. Voluntary reports are not mandatory by law or regulations. Some examples of voluntary reports are: management forecasts, internet sites, press releases, analysts' presentations and conference calls, and other corporate reports. The third type of disclosures about organizations is provided by information intermediaries. Financial analysts, industry experts, and the financial press are some examples of information intermediaries (Healy et al., 2001, p. 406). The second and third type of disclosures can be categorized as voluntary disclosure and this will be discussed in the next paragraph.

2.4 Voluntary disclosure

This paragraph discusses the voluntary disclosure and explains why managers used voluntary disclosure. Voluntary disclosure is not required by the law or any other regulations. According to Meek et al. (1995) is voluntary disclosure extra information that is provided by companies on a voluntary basis to satisfy the information needs of users for decision making.

There are several definitions about voluntary disclosure. Voluntary disclosure is defined by Tian et al. (2005) as when "*companies disclose information voluntary for the sake of companies' images, investors, and accusation risks avoidance"* (Tian et al., 2009, p.55). Beside this definition there are many other definitions given by different researchers. Armitage et al. (2008) define voluntary disclosure as "*provision of information beyond the amount required by law and regulation*" (Armitage et al., 2008, p. 315). According to Popa et al. (2008) the first definition about voluntary disclosure is "*an additional offer of information in relation to different national regulations or international referential of business reporting, that is, something that is not compulsory by the law, but becomes voluntary through the behavior regarding publication*" , the second definition is "*the excess of information, dependent both on the free choice of the enterprise leadership and on the regulations in force, the outside pressures of the capital markets, financial analysts, consulting firm's et al. and the cultural factors*" , and the third definition sounds as follows "*the reporting outside the*

financial statements, which is not explicitly ruled through norms or laws" (Popa et al., 2008, p. 1408).

Voluntary disclosures can be divided in three groups. The three groups are: strategic, financial, and nonfinancial information (Meek et al. 1995, p. 557). The strategic and financial information are more relevant for investors. However, the nonfinancial information is relevant to a broader group of stakeholders than only for investors or owners. A type of non-financial information is for example CSR information. CSR information is relevant because of the material risks for companies corresponding social and environmental issues (Hoff et al., 2008, p. 4 – 5).

Companies provide voluntary disclosures about their social and environmental activities. These type of disclosures are known in the literature as CSR disclosure, sustainability disclosure, social or environmental disclosure. According to Deegan et al. (2006) all these names encompasses "*the provision, to a range of stakeholders, of information about the performance of an entity with regard to its interaction with its physical and social environment, inclusive of information about an entity's support of employees, local and overseas communities, safety record, and use of natural resources*" (Deegan et al., 2006, p. 311). Swift (2001) explains that companies should account for their operations through the provision of information to stakeholders and the society with CSR disclosures. The CSR disclosure is more about the accountability and responsibility of the company's business and their operations.

Managers choose to voluntarily disclose more information when mandatory disclosure is not sufficient to communicate with the company's stakeholders. In this case mandatory disclosure fails due to regulations that are requiring companies to disclose only a certain type of information. Managers use for example CSR accountability mechanism as voluntary disclosure. Because through this managers can develop an understanding of their stakeholders' expectations, but also identify and reach a wide range of stakeholders. However, voluntary disclosure can reduce the information-asymmetry which is discussed in the previous paragraph. With the help of voluntary disclosure managers can eliminate or reduce the information-gap that exist between them and the stakeholders. The study done by Akhtaruddin and Haron (2010) shows that voluntary disclosure reduces the information asymmetry. Additionally, voluntary disclosures have several benefits for a company. Some of these benefits are increase of the shares' value, increase of company's credibility, and an

increase of the potential investors number (Popa et al., 2008).

2.5 CSR Reporting

This paragraph discusses CSR reporting. Dawkins and Stewart (2003) explain in their study that organizations should disclose CSR information to the public and other stakeholders. Companies communicate their performances with the public by several CSR disclosures. These CSR disclosures are provided in a CSR report or other corporate reports. The literature discusses different definitions of CSR reporting. According to the GRI framework the definition of CSR reporting is *"The process of providing information designed to discharge social accountability"*.

Young et al. (2012) explains in their study that to provide information to the stakeholders during the reporting process, managers will make a selection of information. This selection could be what amount of information they will disclose in the CSR reports. It is a discretionary process which reflects the managerial choice (Young et al., 2012). According to Perrini (2006) CSR reporting can reveal managers practices to some level. This level could be defined by a large group of stakeholders. Some other scholars give another explanation about the role of CSR reporting. Douglas et al. (2004) explains that CSR reporting can be seen as a tool in developing a positive image towards the stakeholders. Furthermore, they describes that CSR reporting provides more information about social performance of an organization towards the stakeholders.

Some reasons are mentioned why companies report on CSR. Firstly, Morsing & Schultz (2006) explain that through CSR reporting companies can respond to stakeholder's expectations and helps societal wellbeing. Furthermore, companies can use CSR reporting as a tool to manage their own legitimacy (Castelló & Lozano, 2009). Secondly, Merkl-Davies & Brennan (2007) discusses that companies report on CSR to the shareholders about non-financial risks and reducing information asymmetries. Thirdly, companies report on CSR because they are forced to act so by diverse institutional pressures (Suzanne et al., 2012).

Sutantoputra (2009) discusses in their study that rating of social performances on organizations are assessed on the level of CSR reporting. The assessment of the CSR reports is based on the GRI framework. CSR performance is also disclosed in annual reports of organizations. However, a growing rate of CSR disclosures is disclosed in standalone CSR report (Sutantoputra, 2009). According to Douglas et al. (2004) these differences in CSR

reporting behavior depends on the government policies, cultural differences and the stage of the economic development. Furthermore, the quality of a CSR report does not encompasses the volume of disclosed information (Douglas et al., 2004). In the next paragraph the CSR measures is discussed.

2.6 CSR measures

In the previous paragraph definitions and dimensions of CSR were given and discussed. Like the different and many definitions of CSR, there is also various ways to measure CSR. In this paragraph different CSR measures are discussed. Many scholars use different measurements to measure CSR. Turker (2009) discusses in their study four approaches to measure CSR performance. These four CSR approaches are: reputation indices and databases, single or multiple issue indicators, content analysis of corporate publications, and scales measuring CSR performance of individuals (Turker, 2009).

Reputation indices and databases. This method rates companies on the basis of dimensions of social performances (Cochran & Wood, 1984). Examples of this method are the Fortune Index and KLD databases. This method has some advantages. The first advantage is that it is internally consistent. One evaluator can use same criteria to all companies. Second, it avoids applying an objective measure to a dimension that could be innately subjective (Cochran & Wood, 1984). This approach of CSR measurements has also drawbacks. The biggest limitation of this method is that the databases are only relevant to a restricted area. Only firms in some countries can be evaluated by this method (e.g., KLD in the USA) (Turker, 2009). Furthermore, the output could be unreliable, because rankings are subjective (Cochran & Wood, 1984).

The method of single or multiple issue indicator. An example of this method is the use of the pollution control performance. This method has also drawbacks. First, it does not cover the whole structure of CSR, but reflects only one facet of CSR and is not valid in all industries. It can bias the outcomes because differences between industries (Aras, et al., 2010). Second, as mentioned in the previous method it has limitations for some companies in some countries (Turker, 2009).

The third method is the use of content analyses of CSR reports or corporate documents. The definition of content analysis is *"a research technique for making replicable and valid inferences from data to their context"* (Krippendorff 2004, p. 18). According to Weber (1990)

the definition of content analysis sounds as: *"a set of procedures to make valid inferences from text"*. This measurement approach has some advantages. First, the procedure is relatively objective, after the particular variables have been chosen (McGuire et al., 1988). Second, a larger sample size can be used, because of the technique (mechanical way of measuring CSR) and the results can be generalized (McGuire et al., 1988; Aras, et al., 2010). This method has also drawbacks. First, companies pointed only what they saying in their CSR report or annual report differs from what they are actually doing. But in reality companies may have different activities (McGuire et al., 1988; Aras, et al., 2010). Second drawback is the subjectivity of the chosen particular variables at the beginning of the research. In case of selecting other variables can give different results (McGuire et al., 1988). Previous researches provided evidence that firms performance differs from the content of their reports (e.g., CSR reports) and the actual performance (Turker, 2009).

The last method explained by Turker (2009) is the use of scale measures of CSR performance of individuals. Example of this approach is to measure the individual CSR values of managers. This method is preferred by Turker (2009). This method has also limitation. One disadvantage of this method is that the literature does not provide a good scale measurement for CSR performance at company level (Turker, 2009).

This paragraph shows there is not a universal way to measure CSR. There are several ways to measure CSR.

2.7 CSR Reporting Guidelines

This paragraph gives an overview of CSR reporting guidelines. There exist currently different CSR frameworks and these are: United Nations Global Compact (UNGC), ISO 26000, GRI, AA1000 series, International Integrated Reporting Council (IIRC) (CSR Frameworks Review for the Extractive Industry Canadian Business for Social Responsibility April, 2009).

The UNGC was designed in 2000 by the United Nations and consists a broad set of principles that can used by all companies. The UNGC concentrates more in the areas of human rights, labor, environment and anti-corruption (CSR Frameworks Review for the Extractive Industry Canadian Business for Social Responsibility April, 2009).

The ISO 26000 guidelines were developed in 2010. It provides guidance how companies can operate in a socially responsible way. It is developed by different stakeholder's representatives around the world and represents an international conformity[4].

The Account Ability's AA1000 series are principles-based standards. These standards guide companies to become more accountable, responsible and sustainable. Furthermore, this standard is an assurance standard. It provides operational guidance on sustainability assurance and stakeholders engagement. The AA1000 standards are developed for the integrated reporting[5].

Finally, the IIRC was developed in August 2010. Its main purpose is to develop a globally accepted framework for companies that can communicate about value creation over time. It concentrates more on the content development, engagement and communications, and governance[6].

GRI stands for Global Reporting Initiative. The GRI is an organization that concentrates in the sustainability area. Next, the GRI is developed in 1997 by the non-profit organizations the Coalition for Environmentally Responsible Economies (CERES) and the Tellus Institute[7]. The The contribution of the GRI is to help companies to become more sustainable. The main goal of GRI framework was to develop guidelines and indicators for companies to measure and report their economic, environmental, and social performance. The GRI framework is the mostly complete and used framework providing guidelines for CSR disclosure.

As mentioned earlier in this paragraph the GRI guidelines are continuously improving across the years. The first generation G1 GRI's Sustainability Reporting Guidelines was developed in 2000. Next, in 2002 the second generation G2 was published. After the G2 in 2006 they developed the third generation G3 guidelines. Finally, in May 2013 the latest version the G4 guidelines were released.

The GRI framework consists in two main parts. The first part describes the reporting principles and guidance and the second part describes the standard disclosures. The first part discusses the Reporting Principles of materiality, stakeholder inclusiveness, and sustainability

[4] http://www.iso.org/iso/home/standards/iso26000.htm
[5] http://www.accountability.org/standards/
[6] http://www.iasplus.com/en/resources/sustainability/iirc
[7] https://www.globalreporting.org/information/about-gri/what-is-GRI/Pages/default.aspx

context and completeness. The organization must identify their important stakeholders, their expectations, and information needs. The second part of the Guidelines concentrates on information that is relevant and material to most organizations and stakeholders. This part required various information disclosures like, strategy and analysis, organization profile, information that is comparable on the economic, environmental, and social performance of the company (Sustainability Reporting Guidelines version 3.1, 2006).

The GRI reporting framework provides a "GRI AL" system. The report makers of the GRI based report should indicate which level they used via the AL system. The G3 consists of basically three main AL's. These three AL's are: C, B, and A, which can be self-declared. To give the report a plus (+), an independent third party should verify if the company used GRI at that AL. This is possible for other levels (for example C+, B+, A+). In total, six reporting levels exist ranging from C to A+. The goal of this assurance (third party verification) is to improve reliability of the information that is produced in the CSR report. Stakeholders or users of these CSR reports might rely more on assured CSR reports than CSR reports which are not assured. One big disadvantage of using this AL is that producers of CSR reports can exclude some important topics in their report. The GRI framework is the best known and used framework by organizations. In this study the GRI framework and it's AL is used to determine the disclosure score, because of the GRI's transparency on the AL's and assurance. In the next paragraph the economic consequences of CSR disclosures is discussed.

2.8 Economic consequences

In this paragraph the economic consequences of CSR disclosure information is discussed. Scott (2014) defines economic consequences as *"is a concept that asserts that, despite the implications of efficient securities market theory, accounting policy choice can affect firm value"* (Scott, 2014, p. 122). The important message of this concept is that company's accounting policies and changes in policies makes impacts on managers. If managers are influenced by these policy changes it also affects the shareholders of the company. Because if the accounting policy is changed the managers will change the companies operation also (Scott, 2014). These changes in policy will give more insight why managers of companies use CSR disclosures. Deegan (2002) mentioned that CSR disclosure can contribute to attract 'ethical' or 'social responsible' investment resources. Star (2008) explains that social responsible investment recourses base their investment decisions on CSR performance and FP of a company.

As mentioned earlier in chapter one in this current study the study done by Dhaliwal et al. (2011) found that the voluntary disclosure of a standalone CSR report subsequently lowers the cost of equity capital. By providing more information to investors, cost of capital can be lowered, which will benefit the company. Furthermore, they explain in their study that CSR-disclosure initiating companies with superior CSR performance attract dedicated institutional investors and analyst coverage. Dedicated institutional investors have long investment horizons and play monitoring and governance roles. Increased financial analysts' coverage reduces estimation risk in the market by reducing information asymmetry between managers and shareholders and among shareholders (Dhaliwal et al., 2011).

Deegan (2009) mentioned that CSR reporting might improve the 'sustainable' reputation of the company. Another economic consequence of CSR disclosure information is that this better reputation can have competitive advantages for the company. According to Cooper & Owen (2007) consumers can buy more products and services of companies with good CSR reputation. In the next paragraph the FP measures is discussed.

2.9 FP measures

This paragraph outlines FP measures. The literature describes two different measures that are used of measuring FP: accounting-based performance measurement and market-based performance measurement. Both methods look for different aspects of performance, and each is subjected to particular bias (McGuire et al., 1988). In subsection 3.5.1 and subsection 3.5.2 both methods are discussed.

2.9.1 Accounting-based measurement

Accounting-based measures are used by many scholars in different articles which examine the relationship between CSR and FP. This method encompasses only the company's historical assessment of accounting profitability (McGuire et al., 1988). Examples of accounting-based measures are: ROA, ROE, assets growth, and operating revenue. This method has certain drawbacks. The accounting-based approach shows the historical firm performance. This can be manipulated by managers. Managers used different accounting standards which affect the results and are not relevant to compare across different companies. Finally, when using accounting-based measures the characteristics of different sectors and the risks associated with them are important (McGuire et al., 1988; Aras, et al., 2010). In this study ROA is used as an accounting- based measure for FP. This measurement is often used in prior studies

(McGuire et al. 1988; Pava & Krausz, 1996; Nelling and Webb 2008; Aras et al. 2010). The results in this way can be comparable to these prior studies. In the following subsection the market-based measurement is discussed.

2.9.2 Market-based measurement

This section discusses the market-based measures. Market-based measures concentrate on market performance. Examples of market-based measures are: measurements about the price per share or share price appreciation, EPS, market return, P/E ratio, market-to-book value (Pava and Krausz, 1996) . According to McGuire et al. (1988) are market-based measures less susceptible to different accounting procedures. They are less dependent on managerial manipulations. Market-based measure represents the investor's evaluation of the ability of a company to generate future economic earnings (McGuire et al., 1988). Finally, advantage of market-based performance measurement is that it is an objective measure. It can estimate the value (or the cost) of firms that adopts certain strategies to be socially responsible, conditional on the existing information (Goukasian and Whitney, 2008; Karagiorgos, 2010). However, market-based measures also have their shortcomings. For example, if there is asymmetric information, market-based measures may not reflect fair evaluation from investors (McGuire et al., 1988; Aras, et al., 2010). In general, it is difficult to exclude other influences (market reaction) on the share price of a company. In this study the EPS is used as a market- based measure for FP. This measurement is also used in prior study (Pava and Krausz, 1996). The results in this way can be comparable to this prior study. In the next chapter the review of prior research of the association between CSR and FP is discussed.

2.10 Summary

This chapter provides the background information about CSR and answers the first sub question. It elaborated the content of the term disclosure, voluntary disclosure, CSR and its several dimensions. There exist several definitions about CSR. In this study there is no specific choice made for one definition of CSR. Next, this chapter outlined the economic consequences of CSR disclosure and voluntary disclosure. Voluntary disclosure and CSR reporting can reduce the information-asymmetry that exists between managers and stakeholders. By providing more information to investors, cost of capital can be lowered, which will benefit the company. This chapter provides also information about how CSR is measured and the different CSR reporting guidelines. There are several ways to measure CSR. Finally, the GRI is discussed in more detail, because the GRI is the world's most widely used

sustainability reporting framework by organizations and is committed to its continuous improvement and application worldwide. Finally, in this research ROA is used as an accounting- based measure and EPS is used as a market- based measure for FP.

3. THEORIES EXPLAINING CSR

3.1 Introduction

In this chapter different theories are discussed which explains CSR and provides answer to the second sub question. Paragraph 3.2 till 3.4 is dealing with the various theories related to CSR, PAT, Agency theory, Political economy theory, stakeholder theory, legitimacy theory, and institutional theory. Finally, a summary paragraph is provided at the end of this chapter. Urquiza et al. (2010) describes that theories are developed to explain reasons behind disclosing information. As we have seen in paragraph 2.4 in this study companies have different objectives to voluntary disclose information. Companies voluntary disclose information about their social and environmental performance. Several theories explaining why companies choose to provide these disclosures.

3.2 Positive accounting theory

This paragraph discusses the PAT. According to Deegan et al. (2006*) "a positive theory is a theory that seeks to explain and predict particular phenomena"* (Deegan & Unerman 2006, p. 206). Watts and Zimmerman (1987, p. 7) mentioned that *"PAT is concerned with explaining accounting practice. It is designed to explain and predict which firms will, and which firms will not, use a particular accounting method, but says nothing as to which method a firm should use"*. Scott, W.R. (2009, p. 132) defines *"PAT is concerned with predicting such actions as the choices of accounting policies by firm managers and how managers will respond to proposed new accounting standards"*. In other words PAT helps to understand which accounting policies managers will pick. The PAT is also based on the agency theory, which is discussed in paragraph 3.3.

The PAT concentrates mainly on the relationship between two groups. The first group is individuals providing information and resources to the second group (organization). The main focus is how accounting is used in managing the functioning of the relationship between these two groups. The relationship between managers and suppliers of equity capital (owners), and the relationship between managers and company's debt providers are some of the examples (Deegan et al., 2006). Scott (2009) explains that PAT influences companies to organize themselves at a maximum level for survival. For example some companies depends on the competition in its industry, others are depended on factors as, technology, legal and institutional environment.

According to Watts and Zimmerman (1986, 1990) the three hypothesis of PAT are: bonus plan hypothesis, debt covenant hypothesis, and political cost hypothesis. The first hypothesis claim that if managers of companies are compensated based on reported income; they will use accounting procedures shifting reported income to a higher level and also their bonus (Scott, 2014). This hypotheses can imply that managers use to voluntary disclose CSR information. If the CSR information increases the FP of the organization it will affect also the bonus of the manager. The second hypothesis claim that if the debt/ratio of the company is larger it is more suitable for the manager to use accounting procedures for shifting reported income to a higher level (Scott, 2014). If CSR have a positive effect on the companies FP it is possible that manager's use to voluntary disclose CSR information in order to relax their debt constraints. The last hypothesis claim that the larger the company is, it more suitable is for the manager to use accounting procedures that defer reported earnings from current to future periods (Scott, 2014). High profits may create political 'heat'. According to this hypothesis the managers will not disclose CSR information, because this can increase their income and affects their political scrutiny. Finally, the PAT explains CSR disclosure by self-interest motives of company managers. They can use the first and second hypothesis to disclose CSR information or they can adopt the third hypothesis to not disclose CSR information. In the next paragraph the Agency theory is discussed.

3.3 Agency theory

This paragraph discusses the Agency theory. As mentioned in the previous paragraph the PAT is also based on the Agency theory. The Agency theory gives an important explanation of why companies select a particular accounting method or accounting procedures for example voluntary CSR disclosures. This theory concentrates on the relationship between principals and agents. Principals are for example shareholders and agents are for example corporate managers. The principal hires an agent to do the work, or to perform a task the principal is unable or unwilling to do. According to this theory all individual are hunting for their own interest. Shareholders expect that managers will maximize their wealth, but this could be in conflict with the manager's personal interests. These managers work for their own interests, because they have better information then the shareholders. The Agency theory is as the PAT based on the assumption that all parties are driven by self-interest. Because of this own interests sometimes conflict arises between the principal and the agent. According to Grossman et al, (2002) this conflict is known as the principal-agent problem. As we known the information-asymmetry is the outcome of the agency problem.

According to Deegan et al, (2006) the Agency theory assumes that transactions costs and information costs exist. These costs are in the literature known as the agency costs (Deegan et al., 2006, p. 213). These costs are incurred by the principals to influence agents to work for their interests. These costs are for example bonus compensation to increase the company profits (Brealey et al., 2009). The Agency theory outlines that CSR disclosures are used to decrease the agency costs and to reduce the existing information asymmetries. According to Jensen et al. (1976) the agency relationship is defined as: *"a contract under which one or more (principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent"* (Jensen et al., 1976, p. 308). CSR disclosures are used by the agents to provide information to the principals that they are not working in their own interest. In this study CSR disclosure is used as a tool to provide information to the stakeholders and reducing the information asymmetry that exist between the agents and the stakeholders. In the next paragraph the Political economy theory is discussed.

3.4 Political economy theory

As stated in the previous paragraph the Political economy theory is discussed in this paragraph. Many theoretical perspectives and theories are derived from the political economy theory. These theoretical perspectives and theories are grounded within the PAT which is already discussed in paragraph 3.2 of this thesis. Gray et al. (1996) defines political economy theory as *"the social, political and economic framework within which human life takes place"* (Gray et al., 1996, p. 47). The legitimacy theory and the stakeholder theory are derived from the Political economy theory. Institutional theory can be also related to the Political economy theory. These three theories are discussed later in the subparagraphs. First of all society, politics and economics perspectives are inseparable. It is not easy to investigate economic issues without the political, social, and institutional theory (Deegan & Unerman 2006, p. 269). Political economy theory has been divided in two divisions. According to Gray et al. (1996) the first division is mentioned as classical political economy and the second division is called bourgeois political economy. According to the Political economic theory managers are reporting on CSR to gain legitimacy. In the next subsections the legitimacy, stakeholder, and institutional theories are discussed.

3.4.1 Legitimacy theory

As discussed in the previous paragraph about the PAT and the Agency theory, there exist another theory which explain the incentives for a company to voluntary disclose CSR information. As mentioned in the previous paragraph this paragraph discusses the legitimacy theory. Legitimacy theory, Stakeholder theory, and Institutional theory are part of a wider theoretical framework named systems oriented theories (Deegan & Unerman 2006, p. 268). According to Gray et al. (1996, p. 45) *"a systems-oriented view of the organization and society permits us to focus on the role of information and disclosure in the relationship(s) between organizations, the State, individuals and groups"*. This systems oriented perspective encompasses that the organization is expected to be in a constant interaction with the society within which it operates, to influence it and in turn to be influenced by it (Deegan & Unerman 2006, p. 268). Legitimacy theory attempts to provide an explanation for CSR disclosure of companies.

As mentioned by Deegan et al. (2006) Legitimacy theory encompasses that companies continually managing their operations and activities within the bounds and the norms of the society. These organizations show their activities in such a way that external parties believed it are all legitimate. Additionally, the earlier mentioned bounds and norms are not static, but change over time and the company must response quickly to adapt these changes (Deegan & Unerman 2006, p. 271).

Suchman (1995) gives also an explanation about legitimacy and this is when an organization operates in line with the norms and bounds of the society. The Legitimacy theory discusses a social contract among the company and the community (Dai, 2010). In case in which the company fails to accomplish their social contract it will damages its own legitimacy. The result of this failure could be sanctions from the society (Deegan et al, 2008). To prevent these companies will provide voluntary CSR disclosures. According to this they will perceived if those actions are expected from the society (Cormier et al, 2001). Cho et al, (2007) mentioned that companies can use the disclosure of the information as a tool to maintain their legitimacy and so to escape sanctions from the society. According to Campbell et al, (2003) is the Legitimacy theory the most widely used theory in the literature that discusses the CSR disclosures of organizations. The Legitimacy theory focuses on the bounds and norms of the society. In this study the norms and the bounds can be seen as a contractual obligation between the organization and the society. According to Balabanis et al. (1998) the

obligation exists because the society gives permission to a company to use its natural and human recourses to produce goods and services.

3.4.2 Stakeholder theory

Legitimacy theory discusses expectations of society in general. Stakeholder theory concentrates and focused on particular stakeholders groups. It explains how an organization interacts with these particular groups. Stakeholders are defined by Freeman as an individual or group that can affect the achievements of the organization's objectives or is or are affected by these objectives (Freeman, 1984). Thompson et al, (1995) explained that stakeholders are groups in relationship with an organization. According to Clarkson (1995) stakeholders are persons or groups that have, or claim ownership, rights, or interest in a company and its activities. Stakeholder groups are: employees, local community, suppliers, customers, society, finance providers, governments, and NGO's. Furthermore, Clarkson (1995) classified two groups of stakeholders. The first group is the primary stakeholders and the second group is the secondary stakeholders. The primary stakeholders are defined as *"one without whose continuing participation the corporation cannot survive as a going concern"* (Clarkson 1995, p. 106). According to this definition we can say primary stakeholder group are the public stakeholder group, which is needful for the company to survive. Examples are shareholders, investors, suppliers, and customers. Secondary stakeholders are defined as *"those who influence or affect, or are influenced or affected by, the corporation, but they are not engaged in transactions with the corporation and are not essential for its survival"* (Clarkson 1995, p. 107). Some examples are the media and special interest groups.

The Stakeholder theory has two important parts. First, an ethical (normative) part and second managerial (positive) part (Deegan & Unerman 2006, p. 284). The ethical part as described by Deegan et al. (2006) stated that companies should treat all their stakeholders fairly, regardless their power. This part deals with the reasons for promoting stakeholder interests even in the absence of any obvious benefit. All groups have intrinsic rights, including the right to information. For example stakeholders have some rights like safe working conditions and fair pay. The managerial part describes that companies are more interested to satisfy the powerful stakeholders (Deegan & Unerman 2006, p. 288). The demands of the different stakeholders will have an influence on the company disclosures and operations. The managerial branch of the Stakeholder theory explains that companies will rather satisfy the demands of those powerful stakeholders that are essential for their survival. Efforts at communication reflect

managerial self-interest, and success is measured by the ability to manage conflicting interest groups. Information can be used to manage or manipulate stakeholders in order to gain their support. Stakeholder theory is one of the motives to voluntary disclose CSR information. The managerial branch of the Stakeholder theory could better explain why companies take the decision to voluntary disclose CSR information.

3.4.3 Institutional theory

Deegan et al, (2006) mentioned that the Institutional theory is important for researchers to examine voluntary CSR practices. Additionally, it provides a complementary input (overlapping perspective) to the Stakeholder theory and the Legitimacy theory. All these theories provide information in understanding the organizations actions towards the changes of social and institutional pressures, but also the expectations of the society (Deegan & Unerman 2006, p. 296). Nikolaeva et al. (2011) mentioned that if large part of companies adopts a certain reporting strategy, the other companies will be influenced by institutional pressure to adopt the same strategy.

The Institutional theory describes two important aspects. The first aspect is ‘isomorphism’ and the second aspect is ‘decoupling’ (Dillard et al., 2004). Isomorphism refers to the processes whereby institutional practices (e.g., CSR reporting) change and adapt. This means that, if one company is using a certain method to report on a specific aspect of CSR it is dependent on other companies reporting strategy and industry. According to DiMaggio and Powell (1983) isomorphism is divided in three groups: coercive, mimetic and normative isomorphism. First, coercive isomorphism responses to stakeholder pressure (CSR disclosure are influenced by stakeholder pressure). Next, mimetic isomorphism copies other organizations disclosure strategies in the same industry. In terms of legitimacy companies gain a competitive advantage. Finally, normative isomorphism responds to group norms and values. Here it is a process in which companies adapts its disclosure strategy, because of group norms in the industry. The second aspect of the Institutional theory ‘decoupling’ refers to the detachment between actual organizational practices and publicly announced (institutionalized) practices (Dillard et al., 2004). Evidence of decoupling would be differences between disclosure and actual performance.

As mentioned earlier in subparagraph 3.4.1 on page 31 and page 32 the Legitimacy theory discusses how particular strategies might be taken to manage legitimacy. Organizations use

CSR disclosures to improve and maintain the image of the company. However, the CSR performance is not improved. Institutional theory clarifies that companies faces pressures from several directions. These pressures affect the CSR disclosure strategy of the company. The institutional perspective can explain the voluntary CSR disclosure better. The manager of a company is better motivated to produce CSR disclosures, because of broader society pressures than just self-interest. In the next paragraph the FP measures is discussed.

3.5 Summary

In this chapter different theories are discussed and answers sub question two. Most of the theories explain CSR. The PAT explains voluntary CSR disclosure by self-interest motives of company managers. They can use bonus plan hypothesis and debt covenant hypothesis to disclose CSR information or they can adopt the political cost hypothesis to not disclose CSR information. Next, the Agency theory also explains CSR. According to this theory CSR disclosures are used by the agents to provide information to the principals that they are not working in their own interest. CSR disclosure is used as a tool to provide information to the stakeholders in reducing the information asymmetry that exist between the agents and the stakeholders. The political economy theory encompasses that managers reporting on CSR to gain legitimacy. All theories discusses in this chapter have in common that the company participate in producing CSR disclosure to influence the public. Because of the wealth maximization assumption and the self-interest the PAT and Agency theory is not selected as a basis in this current study. These two theories explain some good aspects. The Legitimacy theory and the Stakeholder theory are used as a basis in this research. Because the Legitimacy theory focuses on the expectations of society in general and with the CSR disclosure the right stakeholders can be reached.

4. LITERATURE REVIEW

4.1 Introduction

After chapters two and three which mainly concentrate on the background information of CSR and theories explaining CSR, this chapter specifically concentrates on prior researches that investigated the association between CSR and FP. A number of these studies and their findings are described in this chapter and sub question three will be answered. In this study the review of the prior researches is presented in a structured way. Paragraph 4.2 is describes the previous studies related to CSR and FP that uses both accounting- and market-based measurements for FP. The use of only accounting-based measurements for FP by previous studies related to CSR and FP is described in paragraph 4.3. Finally, a summary paragraph is provided at the end of this chapter. In appendices three, four, five and six a summarizing table outlines what the researchers have investigated, how they do it, and what are the main findings.

4.2 CSR and FP using accounting- and market-based measurements for FP

This paragraph starts with the review of the studies as mentioned in the previous paragraph concerning the association between CSR and FP using accounting- and market-based measurements for FP. Several researchers such as McGuire et al. (1988), Pava and Krausz (1996), Orlitzky et al. (2003), and Karagiorgos (2010) reported that, to some extent, there is a positive association between CSR and FP. Each researcher focused on a specific aspect such as CSR and traditional FP, CSR and future FP, CSR activities and stock returns, and in different setting and period. The studies of Brandon & Marlin (1985); Soloman & Hansen (1985) reported a negative/positive association between CSR and FP. McGuire et al. (1988) examined how it is possible that previous studies reported different results on the association between CSR and FP. They investigated this using two perspectives on the association between CSR and FP of companies and concluded that CSR is better predicted by prior FP than by subsequent FP. They also concluded that reduction of company risk benefits CSR, social responsibility can influence a company's FP, and previous studies did not used control variables. The later studies use control variables and offers a more correct result. McGuire et al. (1988) use risk and size as two control variables. On the other hand, Pava and Krausz (1996) concluded that there is no evidence that indicates that companies who use social-responsibility criteria performed worse than companies who did not. They concluded also that

socially-responsible companies which uses market-based measures for FP performed relatively stronger and there is small evidence that the association between CSR and FP is positive. On the contrary, McGuire et al. (1988) argued that accounting based performance measure ROA can predict CSR better than market-based measures. The different conclusion might be as a result of different methodology that was used by McGuire et al. (1988) and Pava and Krausz (1996). Both researches used accounting- and market-based measures for FP, but different type of variables to measure the FP. However, both methods has their drawbacks. They used two control variables industry and size. The overall conclusion was that the use of both methods (accounting- and market-based measures) for FP can result in a positive association between CSR and FP. Karagiorgos (2010) investigated the association between CSR and FP. He documented that there is positive association between CSR and FP, and also concluded that there is a positive and significant association between CSR and stock returns. Karagiorgos (2010) executed their study in the Greece, listed companies on the Athens Stock Exchange. The study of Orlitzky et al. (2003) documented that there is a positive association between CSP and CFP. They also concluded that the association is stronger confirmed by accounting-based measures for CFP than market-based measures. This might be as a result of the use of three methods (market-based, accounting-based, and perceptual measures) to measure the CFP. Orlitzky et al. (2003) executed their study using a meta-analysis of 52 studies.

On the other hand, Nelling and Webb (2009) investigated the causal relation between CSR and FP and concluded that there is no association between CSR and FP. They used accounting-and market-based measurements for FP and firm size and leverage as control variables. They also concluded that there is no evidence that CSR affects a company's FP. However, the authors used time series fixed methods to investigate the association between CSR and FP. Using the traditional statistical technique (OLS) shows a positive association between CSR and FP. Scholtens (2008) executed his study in USA. The author investigates whether FP precedes SP or whether SP precedes FP and used market-based measurement for FP. He concluded that there is a positive significant interaction between FP and SP. In more detail the FP components risk and returns precedes the SP components strengths and concerns.

4.3 CSR and FP using accounting-based measurements for FP

This paragraph starts with the review of the studies concerning the association between CSR and FP using accounting- based measurements for FP. The study performed by Waddock & Graves (1997) investigated the association between CSP and FP in the USA. They concluded that there is a positive association between CSP and FP. They also concluded that better FP leads to a better CSP and also opposite. Size, risk, and industry is used as control variables. On the contrary, McWilliams & Siegel (2000) investigated an extant fault in the methodologies of prior research on the study of the connection between CSR and FP. This existing error is the fact that prior methodologies does not control for investment in R&D, while R&D appears to have a major influence on FP. They concluded that R&D intensity is highly correlated with CSR and when R&D is included in the model CSR has a neutral effect on FP. Chin-Huang et al. (2009) executed their study in Taiwan. They investigated the influence of CSR on FP. They concluded that good investments in CSR will lead to better CFP in the long-term and companies with high R&D expenditures have good FP.

On the other hand, Moneva et al. (2009) investigated the association between CEP and CFP. They concluded that there is a positive association between CEP and CFP. They also concluded that companies with intensive CEP has an improved CFP in a later period. Aras et al. (2010) investigated the association between CSR and FP. Aras et al. (2010) executed their study in Turkey, listed companies on the Istanbul Stock Exchange (ISE). They concluded that there is an association between firm size and CSR. The authors used accounting-based measurements for FP and three control variables (company size, risk, and R&D). The overall conclusion was that there is no association between CSR and FP. The different conclusion might be as a result of different methodology that was used by Moneva et al. (2009) and Aras et al. (2010). Both researches used accounting- based measures for FP, but different type of variables to measure the FP. Ahamed et al. (2013) investigated the association between CSR and CFP. They executed their study in Malaysia and concluded that there is a positive association between CSR and CFP. The authors used two control variables company size and company revenue. In the next chapter the research design is discussed.

4.4 Critical Reflex

This paragraph makes a comparison of the remarkable differences, approaches, similarities, and explanations of prior studies discussed in the previous paragraphs. First, the different research objectives are elaborated. Only, Nelling and Webb (2009), Karagiorgos (2010) and

Aras et al. (2010) investigated exactly the relationship between CSR and FP. As mentioned in the previous paragraphs Nelling and Webb (2009) and Aras et al. (2010) found no evidence that there is a relationship between CSR and FP. The difference between these two studies is that both uses different methods to investigate the relationship between CSR and FP. Nelling and Webb (2009) used three different methods, whereas Aras et al. (2010) used only one method. Granger causality and Tobit model were used by Nelling and Webb (2009) to control for firm fixed-effects over time and CSR causality for the censored nature of the data. However, Aras et al. (2010) used no methods to control for fixed-effects in time and the nature of the data. One remarkable fact here is that Nelling and Webb (2009) and Aras et al. (2010) come to the same conclusions, since they used both different methods and different measurements for FP (ROA, ROE, ROS, and common stock returns) and CSR (content analysis and KLD index). On the other hand the study of Karagiorgos (2010) found a positive and significant relationship between CSR and FP. One remarkable fact here is that in this study companies CSR reports based on GRI is used to measure CSR and for FP only market-based measurements is used. One similarity is that all three studies used regression analysis. Hence, the regression analysis used by these studies are relevant for this thesis.

Gross of the prior studies in this chapter used regression analysis to investigate the relationship between CSR and FP. Further differences in methods can be found in the measurements for FP used in the models. Different studies create or use an index measuring the CSR or CSP performance. Waddock & Graves (1997) found a positive relationship between CSP and FP. Only difference with the study of Aras et al. (2010) is that to measure CSP a CSP index was constructed and rated by KLD index. One similarity between these two studies is that both uses the same variables to measure FP. One remarkable fact here is that they found not the same results using same measurements for FP. One explanation for this can be given, because both studies used the same control variables (firm size and risk). However, Aras et al. (2010) used R&D as a third control variable, whereas Waddock & Graves (1997) used industry as a control variable. McWilliams & Siegel (2000) used the same model as Waddock & Graves (1997) did, but using this time R&D as a fourth control variable and found the same results as Aras et al. (2010). Nine of the twelve studies in this chapter found a positive relationship between CSR and FP or CSP and CFP.

4.4 Summary

Chapter four answers sub question three. There is an extended literature about the association between CSR and FP and different aspects of this subject are investigated. The most often used research method in this field is the regression analysis. Next, most of these studies used the accounting-based measurement for FP. Other researchers used both the accounting- and market-based measurements for FP. The often used variable to measure FP is ROA. Several measurements are used to measure CSR. The most used CSR measures are KLD ratings and content analysis. This chapter gives an overview that at least four variables influence the association between CSR and FP. The results of these studies are mixed. Finally, in appendices three, four, five and six a summary of the prior studies used in this current study is presented.

5. RESEARCH DESIGN

5.1 Introduction

This chapter describes the research design and provides an answer to the fourth sub question. The results are elaborated in chapter six. Paragraph 5.2 starts with the hypothesis development and paragraph 5.3 continuous with the regression models. In paragraph 5.4 the data analysis is described and in paragraph 5.5 the Libby boxes are designed. Finally, a summary paragraph is included.

5.2 Hypothesis development

In this paragraph the hypotheses development will be described. The formulated hypotheses will be explained through the background information of CSR discussed in chapter 2, the theories explaining CSR in chapter 3, and the empirical findings presented in chapter 4. Based on the information in chapter 4, different hypotheses can be formulated to test for, in order to answer the main research question *"Is there an association between CSR and FP of the top fifty listed companies from the EU?"*

Chapter four of this study demonstrates that the association between CSR and FP is not clear in the prior researches. As mentioned in paragraph 1.2 on page 11 some studies illustrated a positive association between CSR and FP (McGuire, et al. 1988; Orlitzky et al. 2003; Waddock et al. 1997; Chin-Huang et al. 2009; Ahamed et al. 2013). Other study showed a negative relationship between CSR and FP (Moore, 2001). Finally, some studies illustrated a neutral relationship between CSR and FP (McWilliams and Siegel, 2000; Nelling and Webb 2009). We expect that the association between CSR and FP is positive. Looking to the limitations of the prior studies and using of the broadly accepted measures of CSR and FP the following hypothesis are developed.

H_0a: For the top fifty listed companies in EU, there is no positive association between CSR and FP using accounting-based measures.

H_1a: For the top fifty listed companies in EU, there is a positive association between CSR and FP using accounting-based measures.

H_0b: For the top fifty listed companies in EU, there is no positive association between CSR and FP using market-based measures.

H_1b: For the top fifty listed companies in EU, there is a positive association between CSR and FP using market-based measures.

The above developed hypothesis will be tested in the next chapter.

5.3 Regression models

In order to answer the research question of the current study, a regression analysis will be conducted. In this current study two dependent variables for FP is used. To use both methods to measure FP two regression models are developed. In the first regression model ROA is used as an accounting-based measure, and in the second regression model EPS is used as a market-based measure.

The first and the second regression models has the following forms:

$$ROA_{i,t} = \alpha+\beta1CSR_{i,t}+\beta2Firm\ size_{i,t}+\beta3Risk_{i,t}+\beta4IND_{i,t}+\beta5R\&DINT_{i,t} +\beta6GRI_{i,t+}\beta7ASSCSRRB4_{i,t}+\varepsilon_{i,t}$$

$$EPS_{i,t} = \alpha+\beta1CSR_{i,t}+\beta2Firm\ size_{i,t}+\beta3Risk_{i,t}+\beta4IND_{i,t}+\beta5R\&DINT_{i,t} +\beta6GRI_{i,t+}\beta7ASSCSRRB4_{i,t}+\varepsilon_{i,t}$$

Where,

ROA_i of company i, (Net Profit / Total Assets)

EPS_i of company i, (Net earnings/ number of outstanding shares)

α = intercept, the estimated value of FP_i

CSR_i = CSR score of company i

Firm $size_i$= a proxy for the size of company i, (ln of total assets)

$Risk_i$ = a proxy for the risk of company i (Total debt/total assets)

IND_i= industry of company i, (4 digit US SIC Code)

$R\&DINT_i$ = R&D intensity of company i, (R&D expenditures/sales)

GRI_i = GRI-based CSR report disclosing by company i (1= GRI, otherwise = 0)

$ASSCSRRB4_i$ = Assured CSR report of company i by big 4 audit firms (1= Big 4, otherwise = 0)

ε_i = residual, part of the observed FP_i that is not explained by the model

t = year index, year 2009-2013

i = company index

The two dependent variables will be elaborated in sub paragraph 5.4.2 and the independent variable is discussed in sub paragraph 5.4.3. Finally, six control variables (Firm size, risk, industry, R&D intensity, GRI, and assurance big 4) used here above in the regression equation will be discussed in sub paragraph 5.4.4. The methodology of this research is illustrated in the Libby boxes in paragraph 5.5.

5.4 Data analysis

This paragraph will describe the sample collection and the data collection. All variables as used in both regression models in the previous paragraph will be discussed in this paragraph.

5.4.1 Sample and data collection

Chapter four of this thesis showed that the association between CSR and FP has been studied by many researchers. Most of these studies central point was on companies in the United States, Greece, Turkey, and Malaysia. In this research the association between CSR and FP of the top fifty listed companies from E.U. will be investigated. In order to get a workable sample, the top fifty listed companies from the E.U. as regards the 2013 turnovers were selected. The choice for listed companies with the highest turnovers was in order to try to prevent biased results by choosing a measure that is independent of losses and gains. In this way a workable homogenic study population was created. ORBIS, database is used, produced all the financial information for the years 2009 till 2013 for the fifty listed companies from the E.U. All these listed companies produce a standalone CSR report or a SR or published a section in its AR. The standalone CSR or SR are collected from the company's website for the years 2009 till 2013. The sample period of five year (2009-2013) with yearly data is used in this study, because in this case we would achieve a larger sample. The selected period gives us the opportunity to view the years of implementation of G3 GRI guidelines by the listed companies. A longer period is preferred, because most listed companies in the EU implement the G3 guidelines in these periods. The time range used in this current research is relatively recent and chosen in order to provide reliable and useful results. The fifty listed companies in the sample are shown in appendices one and two.

5.4.2 Dependent variable

Chapter two of this thesis described different methods to measure FP. As mentioned by McGuire et al. (1988) there are accounting-based measures of FP and market-based measures of FP. McGuire et al. (1988) compares both methods and argued that both methods has their

advantages and disadvantages. In this study we used both accounting-based measures and market-based measures for FP, in line with other studies about the association between CSR and FP (McGuire et al. 1988; Nelling and Webb 2008). Further, ROA will be used as an accounting- based measure for FP. This measurement is often used in prior studies (McGuire et al. 1988; Pava & Krausz, 1996; Nelling and Webb 2008; Aras et al. 2010). The results in this way can be comparable to these prior studies. Important is that the ROA separates financial activities of the company from operational and investment activities. The ROA is defined as follow according to Palepu et al. (2013):

ROA = Net Profit / Total Assets

In order to capture FP of the EU listed companies we used EPS as a market-based measure. Pava & Krausz (1996) used also this measurement for FP. The results in this way can be comparable to this prior study.

EPS is defined as follow:

EPS = Net earnings/ number of outstanding shares

5.4.3 Independent variable

The independent variable of this study is CSR. As described in paragraph 2.6 there are four approaches to measure CSR. However, all these methods has their advantages and disadvantages. In this research a Point Score System (PSS) is used to measure the CSR of the fifty listed companies from the EU. Most listed companies provide some kind of information about CSR in CSR reports. In this study annual standalone CSR reports of the listed companies will be used as a proxy to measure the CSR performance. Paragraph 2.7 describes the different general accepted framework that are globally used for CSR reporting. The GRI guidelines and the AA1000 both give a comprehensive reporting framework and a possibility to add external assurance to the report. As mentioned in paragraph 2.7 the GRI provide six AL's. These AL's provide information to the users concerning the extent to which the GRI guidelines have been utilized. The study of Giannarakis et al. (2011) used also the AL's that are provided by the GRI guidelines. They modified the AL of the GRI guidelines to a performance scale in order to evaluate the performance of companies. Further, they developed a six point system score for the evaluation of the CSR performance for the companies for each year (Giannarakis et al. 2011). In this study the method of Giannarakis et al. (2011) is modified in a seven PSS to measure CSR of the fifty listed companies from the EU for each year. An extra AL D is included with a score of one. Listed companies that are not reporting on GRI or reports on another CSR guidelines/framework will be classified by this self made

AL D. These companies will receive a score of one point as not reporting or not using a specific GRI guideline. This method is used to measure CSR in this study, and the results in this way can be comparable to the prior study of Giannarakis et al. (2011). In appendices nine and ten the CSR scores of the fifty listed companies of EU are given. The PSS used to measure CSR performance in this study are shown in Table 1.

AL	PSS
D	1
C	2
C+	3
B	4
B+	5
A	6
A+	7

Table 1. A seven PSS

5.4.4 Control variables

Prior research showed also that there are other factors, which can affect the dependent variable and the independent variable (McGuire et al. 1988; Waddock et al. 1997; McWilliams and Siegel 2000; Aras et al. 2010). Based on their studies, in this study also control variables will be used. In this study six control variables will be used and these are: firm size, risk, industry, R&D intensity, GRI, and assurance big 4. These variables could affect the association between CSR and FP. In the analysis the effect of these six control variables will be investigated.

Firm size

The first control variable that is also used in most prior researches is firm size. According to the study of Waddock and Graves (1997) they defined size *"as a significant variable since the socially responsible behavior disclosed by larger firms tend to be more than those disclosed by smaller firms"*. Small companies are less likely to use CSR reports or implement CSR activities than larger (listed) companies. One explanation for this is that larger companies can implement CSR strategies more fast, because of their financial recourses and the increasing attention from stakeholders. The listed companies in the sample are the fifty largest listed companies according to the highest turnovers. Previous studies (McGuire et al. 1988;

Waddock & Graves 1997; Aras et al. 2010) tested and controls for the impact of firm size on CSR and FP and used different measurements for firm size. Orlitzky et al. (2003) gives in their study a summary about the measurements of size which prior studies has used. The following size predictors are: number of employees, number of shareholders, total assets, total sales, owners 'equity, lines of business, ln of average revenues, and log of sales Orlitzky et al.(2003). To control for the impact of firm size on CSR and the FP of the listed companies in this study firm size will be measured by using ln of total assets.

Risk

As we have seen in chapter four, risk is one of the most used control variables in the previous studies (McGuire et al. 1988; Waddock & Graves 1997; Aras et al. 2010). To control for the financial risk of the listed companies. In this study total debt divided by total assets will be used as a proxy to measure the risks of the listed companies.

Industry

The third control variable that is also used most in prior studies is industry. According to the prior studies industry can influence the association between CSR and FP. Furthermore, the possibility exist that the linkage between CSR and FP differs between the different industries. One specific reason for these phenomena is that each type of industry has their own tool leading to FP. Another explanation is that a particular industry can perform financially better than another industry. For example companies in the oil and gas industry or chemical industry attract more attention from different stakeholders and these companies should pay more attention to CSR, than companies in other industries. In this research industry will be measured by the four number US primary SIC-codes (Cochran and Wood 1984; Waddock and Graves 1997; McWilliams and Siegel 2000). The US primary SIC-code indicates a company's primary line of business[8]. For the classification of the different industries, see appendices seven and eight.

R&D intensity

The fourth control variable that will be used in this study is R&D intensity. According to chapter four of this study McWilliams and Siegel (2000) mentioned in their study that most of the prior studies does not control for R&D influences. Investment in R&D plays an important role on the influence of FP. The investments in technical capital (product or process

[8] http://siccode.com/en/pages/what-is-a-sic-code

innovation) are important elements for companies that implement CSR. In this study R&D intensity will be measured as R&D expenditures divided by sales.

GRI

The GRI's AL tool and the extended publicly available information of GRI reporters can play an important role to use this framework in this study. The proxy for CSR reporting is a dummy variable (GRI_i) that is one for EU listed companies issuing a CSR report based on the GRI.

Assurance big 4

The quality and the reliability of CSR reports can affect the association between CSR and FP. EU listed companies that reports with the highest AL "A" and the report is external assured will have the most quality. This makes it possible to assess how shareholders react on different levels of quality of CSR reporting. In this study assurance by the big 4 audit firms ($ASSCSRRB4_i$) is used as a dummy variable for companies issuing GRI reports with third-party assurance.

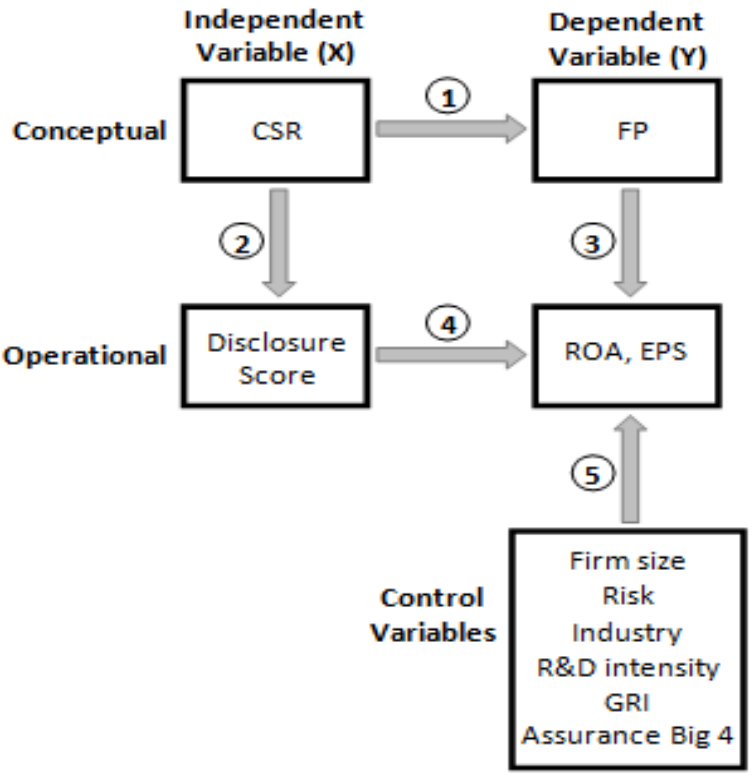
Most European countries use local guidelines in CSR reporting. These local CSR reporting guidelines are voluntary prescriptions and are stated in the form of 'Code of Conduct' or 'Reporting Guidelines' (Ioannou & Serafeim, 2012). The fifty EU listed companies used in this study are from the following ten EU countries: Austria, Belgium, Denmark, France, Germany, Italy, Luxembourg, Netherlands, Spain, and United Kingdom. From the EU countries Denmark is the only country where CSR disclosure is mandatory (Danish Commerce and Companies Agency, 2013). Other European listed or not listed companies are still free to make their choice whether to report on CSR or not (European Commission, 2011). As we have seen CSR reporting is not mandatory for all EU (listed) companies, except for one Danish listed company (A.P. Moller-Mearsk A/S). The other remaining 49 EU listed companies are not from Denmark. This is the reason why country is not taken as a control variable in this study. We assume that country will not affect the association between CSR and FP.

5.5 Libby boxes

According to Libby (1981) are 'Predictive validity framework' better known as Libby boxes a framework that captures the researchers concept and illustrate the research process. The Libby boxes contains four boxes and five links or five arrows. These boxes contains the following

five variables: independent, dependent, conceptual, operational, and control variables. The first and second boxes (see figure 2 boxes above) gives theory domain and third and fourth boxes (see figure 2 boxes below) gives empirical domain. As mentioned earlier these five links or five arrows explains the relations between the variables and clarifies the construct, the internal and external validity between these variables (Maas, 2011). The first arrow reflects the theoretical support for the predicted effect of CSR on FP. The second and third arrow reflects the measurements of CSR and FP and gives the construct validity. CSR is operationalized by disclosure score and FP is operationalized by ROA. If the construct validity is higher the better the abstract idea is measured (Maas, 2011). Arrow four reflects the association that is tested between CSR and FP. This arrow represents the internal validity in the framework. The internal validity refers to how well the study captures a causal effect between the operationalized dependent variable and independent variable (Maas, 2011). Finally, the last arrow reflects the effect of other factors (control variables) on the outcome of FP. As mentioned in the previous paragraph the six control variables of this study are: risk, firm size, industry, R&D intensity, GRI, and assurance big 4 (see also in figure 2 and 3). These control variables can increase the internal validity of this study. This is possible, because higher internal validity results in a better association between CSR and FP. In paragraph 1.6 of this study the external validity is defined. According to (Maas, 2011) if a study has a high external validity the outcome of that study is more representative. The chosen sample can be generalized to the population of interest. The external validity is reflected by arrow one in figure 2 that is represented by arrow four. The external validity of this study is low, because this study focuses consequently on EU setting. The results cannot be generalized to other population outside the EU for example for U.S. listed companies. Next, the internal validity of this study is high because the use of the six control variables increases the internal validity. Finally, the construct validity is high in this study according to the used operationalized measurements for the dependent variable and independent variable. The ROA and EPS captures the FP of the EU listed companies and the disclosure score captures the CSR performance of the EU listed companies.

Figure 2: Libby boxes



5.6 Summary

This chapter describes the research design and developed the hypothesis of this study and answered sub question four. Prior research on the topic of the association between CSR and FP shows different results. Two hypothesis are developed in this chapter. H1a will test the positive association between CSR and FP using accounting-based measures, and H1b will test the positive association between CSR and FP using market-based measures. To conduct the research on this association two regression models are developed.

6. FINDINGS

6.1 Introduction

In this chapter the results of the regression analysis will be shown. Paragraph 6.2 describes the descriptive statistics. Paragraph 6.3 presents the results of the correlation analysis and paragraph 6.4 continues with the results of the regression analysis. Paragraph 6.5 presents the robustness check of the used models in this research. The appendices contain SPSS output of the correlation and regression tables. Finally, a summary paragraph is included.

6.2 Descriptive statistics

Before determining the descriptive statistics, the normality of the distribution of ROA and EPS is checked. Two histograms are made for both ROA and EPS. Both histograms show an approximately normal distribution for both and shows outliers for ROA and EPS. The two box plots for both ROA and EPS (see appendices 13 and 14) shows the outliers more clearly. Field (2009) defines an outlier as an observation that is very different from most of the other observations (Field, 2009, p. 791). These outliers can cause the model and also affect the values of the estimated regression coefficients (Field, 2009, p. 215). In this research some points will be mentioned clearly why outliers are important and why researchers care about them. First, outliers can skew data from a normal distribution. Second outliers can affect accuracy of data analysis technique. Finally, outliers can also affect how well the sample represents the population. To deal with these outliers there are two common techniques which is mostly used. First technique is called trimming or deleting or removing data from the dataset and the second technique is called winsorizing of the data[9]. Winsorizing of the data contains that the smallest and the largest values of the observations are replaced by using the mean of the variable. This is done to mitigate the potential spurious effects of outliers on statistical tests. Because the data that is used in this research is not biased or has measurement error the first method is not used. In this research the second technique is used to deal with outliers. To be sure whether both variables are normal distributed, the normality of the distribution in SPSS is tested using the Kolmogorov-Smirnov and Shapiro-Wilk test. These tests are developed to test whether the distribution as a whole deviates from the normal distribution comparing the data to a normal distribution with the same mean and standard

[9] http://researchfinancial.wordpress.com/2012/05/17/dealing-with-outliers-in-datasets/

deviation (Field, 2009, p. 144). The results of these two tests clarifies that both are significant at the level of 1% and it tells that the distribution are not normal. The outliers are winsorized by using the mean of 3,1104 for ROA and 9,0382 for EPS. The winsorized ROA and winsorized EPS is approximately normal distributed. In appendices 13 and 14 the SPSS output shows the testing of the normal distributions. The winsorized ROA and winsorized EPS are used for further analysis in this study.

Table 2 shows the descriptive statistics of this research. This table provides a statistical overview of the depend, independent, and control variables that are used in this research. The sample size for the main test is 250 firm-year observations. The mean of ROA is 3,1104 and EPS has a mean of 9,0382. The value of ROA explains that majority of the listed companies have a ROA of 3,11%. Further, the value of EPS explains that most listed companies have a EPS of €9,04. CSR has a mean of 3,98 indicating that most listed companies used AL's to measure their CSR performance. Firm size has a mean of 25,45 million Euros. The value of firm size indicates that the sample firms do not show any large decrease or increase. Risk shows relatively a stable result of 0,02%. Industry has a mean of 4,64. This value explains that most of the listed companies in the sample are manufacturing companies. R&D intensity has a mean of -1,6175. This value explains that there is a decrease in R&D intensity of listed companies with -1.62%. GRI has a mean of 0,66, indicating that approximately 66% of the EU listed companies used GRI framework to disclose their CSR information. Assurance Big 4 has a mean of 0,60, indicating that approximately 60% of the standalone CSR reports of the listed companies are assured by the Big 4 audit firms.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	250	-11,0777	22,9835	3,110404	4,0181966
EPS	250	,0000	320,8800	9,038200	34,8569832
CSR	250	1,0000	7,0000	3,980000	2,6997694
Firm size	250	23,3575	28,4030	25,452438	1,1925254
Risk	250	,0000	,0527	,020203	,0133444
IND	250	1,0000	13,0000	4,640000	3,6556607
RDINT	250	-15,6384	,0000	-1,617547	3,2036349
GRI	250	0	1	,66	,475
ASSCSRRB4	250	0	1	,60	,491
Valid N (listwise)	250				

Table 2: Descriptive statistics

The value of the individual variables are reported by the descriptive statistics. In the next paragraph the correlation between the two variables will be discussed.

6.3 Correlation ROA and EPS results

In this paragraph the correlation of the variables is presented and analyzed. Table 3 present the Pearson correlations between respectively ROA and CSR and, including the related variables in the regression models. The correlation values in the table are significant at the 1% and 5% level. The Pearson correlation between ROA and CSR is 0,078. The positive Pearson correlation indicates that the use of CSR by companies increase the ROA of the companies. The firm size, industry, R&D intensity, and GRI have a weak correlation with ROA. Firm size, industry, and R&D intensity is negatively correlated with ROA, while GRI is positively correlated. Risk and assurance big 4 is strong correlated with ROA. These two are positively correlated with ROA. Firm size, industry, and R&D intensity are significantly correlated with ROA. CSR is significant with GRI and assurance big 4. Firm size is significant with risk, industry, and R&D intensity. Further, risk is significant with industry and R&D intensity. Industry is significant with R&D intensity. Finally, GRI is significant with assurance big 4.

Table 4 present the Pearson correlations between respectively EPS and CSR and, including the related variables in the regression models. The correlation values in the table are significant at the 1% and 5% level. According to table 4 the Pearson correlation between EPS and CSR is -0,007. The negative Pearson correlation indicates that the use of CSR by companies decrease the EPS. Firm size, risk, GRI, and assurance big 4 have a strong correlation with EPS. Industry and R&D intensity have a weak correlation with EPS, while R&D intensity is positively correlated. Industry is negatively correlated with EPS. Firm size is significant with risk, industry, and R&D intensity. Industry is significant with R&D intensity and GRI is significant with assurance big 4. In the next paragraph the results of the multiple regression between the two variables will be discussed.

Correlations

		ROA	CSR	Firm size	Risk	IND	RDINT	GRI	ASSCSRRB4
ROA	Pearson Correlation	1	,078	-,301**	,140*	-,335**	-,221**	,036	,160*
	Sig. (2-tailed)		,219	,000	,027	,000	,000	,572	,012
	N	249	249	249	249	249	249	249	249
CSR	Pearson Correlation	,078	1	,107	,096	-,127*	,025	,794**	,424**
	Sig. (2-tailed)	,219		,091	,129	,044	,689	,000	,000
	N	249	250	250	250	250	250	250	250
Firm size	Pearson Correlation	-,301**	,107	1	-,522**	,490**	,219**	,157*	,026
	Sig. (2-tailed)	,000	,091		,000	,000	,000	,013	,685
	N	249	250	250	250	250	250	250	250
Risk	Pearson Correlation	,140*	,096	-,522**	1	-,414**	-,200**	-,085	-,043
	Sig. (2-tailed)	,027	,129	,000		,000	,001	,181	,503
	N	249	250	250	250	250	250	250	250
IND	Pearson Correlation	-,335**	-,127*	,490**	-,414**	1	,337**	,054	-,020
	Sig. (2-tailed)	,000	,044	,000	,000		,000	,394	,751
	N	249	250	250	250	250	250	250	250
RDINT	Pearson Correlation	-,221**	,025	,219**	-,200**	,337**	1	,053	,023
	Sig. (2-tailed)	,000	,689	,000	,001	,000		,401	,721
	N	249	250	250	250	250	250	250	250
GRI	Pearson Correlation	,036	,794**	,157*	-,085	,054	,053	1	,448**
	Sig. (2-tailed)	,572	,000	,013	,181	,394	,401		,000
	N	249	250	250	250	250	250	250	250
ASSCSRRB4	Pearson Correlation	,160*	,424**	,026	-,043	-,020	,023	,448**	1
	Sig. (2-tailed)	,012	,000	,685	,503	,751	,721	,000	
	N	249	250	250	250	250	250	250	250

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

*. Correlation is significant at the 0.05 level (2-tailed).

Table 3: Pearson correlation ROA

Correlations

		CSR	Firm size	Risk	IND	RDINT	GRI	ASSCSRRB4	EPS
CSR	Pearson Correlation	1	,107	,096	-,127*	,025	,794**	,424**	-,007
	Sig. (2-tailed)		,091	,129	,044	,689	,000	,000	,907
	N	250	250	250	250	250	250	250	250
Firm size	Pearson Correlation	,107	1	-,522**	,490**	,219**	,157*	,026	-,042
	Sig. (2-tailed)	,091		,000	,000	,000	,013	,685	,507
	N	250	250	250	250	250	250	250	250
Risk	Pearson Correlation	,096	-,522**	1	-,414**	-,200**	-,085	-,043	-,037
	Sig. (2-tailed)	,129	,000		,000	,001	,181	,503	,560
	N	250	250	250	250	250	250	250	250
IND	Pearson Correlation	-,127*	,490**	-,414**	1	,337**	,054	-,020	-,063
	Sig. (2-tailed)	,044	,000	,000		,000	,394	,751	,320
	N	250	250	250	250	250	250	250	250
RDINT	Pearson Correlation	,025	,219**	-,200**	,337**	1	,053	,023	-,149*
	Sig. (2-tailed)	,689	,000	,001	,000		,401	,721	,018
	N	250	250	250	250	250	250	250	250
GRI	Pearson Correlation	,794**	,157*	-,085	,054	,053	1	,448**	-,022
	Sig. (2-tailed)	,000	,013	,181	,394	,401		,000	,725
	N	250	250	250	250	250	250	250	250
ASSCSRRB4	Pearson Correlation	,424**	,026	-,043	-,020	,023	,448**	1	-,068
	Sig. (2-tailed)	,000	,685	,503	,751	,721	,000		,286
	N	250	250	250	250	250	250	250	250
EPS	Pearson Correlation	-,007	-,042	-,037	-,063	-,149*	-,022	-,068	1
	Sig. (2-tailed)	,907	,507	,560	,320	,018	,725	,286	
	N	250	250	250	250	250	250	250	250

*. Correlation is significant at the 0.05 level (2-tailed).

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

Table 4: Pearson correlation EPS

6.4 Multivariate regression results ROA and EPS

In order to test the developed hypothesis the multivariate equations will be regressed. The first equitation contains one independent variable (CSR) and six control variables, which will explain the first dependent variable ROA. In appendix 11 the SPSS output of the first multiple regression is given. The value of R (0,424) shows the multiple correlation between the predictor and the outcome. The value of R^2 shows that 17,9% of the ROA is explained by the independent variable CSR. The table of ANOVA shows that for the model the F-ratio is 7,525. This means that the first model is significant, because ($P < 0,05$). The intercept B_0 of the first model is 17,096 and the first regression coefficient is positive 0,033. This results shows that the direction of the association between ROA and CSR is positive. Now it turns out that an increase in CSR results in an increase of the companies ROA. There is a negative association between ROA and the control variables firm size, risk, industry, R&D intensity, and GRI. Assurance big 4 indicates a positive association with ROA. The SPSS output shows that for the other variables (firm size and industry) in the model the association is significant ($P < 0,05$).

The second equitation contains one independent variable (CSR) and six control variables, which will explain the second dependent variable EPS. In appendix 12 the SPSS output of the second multiple regression is given. The value of R (0,193) shows the multiple correlation between the predictor and the outcome. The value of R^2 shows that 3,7% of the EPS is explained by the independent variable CSR. The table of ANOVA shows that for the second model the F-ratio is 1,332. This means that the second model is not significant, because ($P > 0,05$). The intercept B_0 of this model is 7,286 and the first regression coefficient is positive 0,083. This results shows that the direction of the association between EPS and CSR is positive. Now it turns out that an increase in CSR results in an increase of the companies EPS. However, this association is not significant ($P > 0,05$). All control variables has a negative association with EPS. In the next paragraph the results of a robustness check between the two variables will be discussed.

6.5 Robustness check ROA and EPS

In this research two models are used. To be sure which model is better a robustness check is done. The robustness check contains that the not significant variables are excluded from the models, and once again the regression is running out in SPSS. Appendix 16 presents the outcome of the robustness check of variable ROA. The value of R is decreased to 0,404. The

value of the R^2 is also decreased to 16,3%. The table of ANOVA shows that for the model the F-ratio is increased to 15,894. This means that after excluding the not significant variables from the first regression equation the model is still significant, because (P < 0,05). The results here shows that the excluded variables from the model do not affect the final outcome.

Appendix 17 presents the outcome of the robustness check of variable EPS. Here is the outcome approximately the same as for the first model. The value of R is decreased to 0,149. The value of the R^2 is also decreased to 2,2%. The table of ANOVA shows that for the model the F-ratio is increased to 5,636. This means that after excluding the not significant variables from the second regression equation, the model is now significant, because (P < 0,05). The excluded variables of the second model affects the final outcome.

6.6 Summary

This chapter describes the findings of this research and answered sub question five. First, the normality of the distribution of ROA and EPS is checked with the Kolmogorov-Smirnov and Shapiro-Wilk test. Histograms and box plots is made to check the potential outliers and are winsorized with the mean for ROA and EPS. Second, the descriptive statistics are introduced including the total observations, mean, median, and standard deviation. Further, the bivariate correlation between the variables is determined by the Pearson correlation. Next, the results of the multivariate regression is showed. Finally, a robustness check is done to make sure, if the not significant variables in both models affects the final outcome of this research. All these test are performed using SPSS.

7. ANALYSIS

7.1 Introduction

In this chapter the findings of chapter six will be analyzed. Paragraph 7.2 will analyze the results with the developed hypothesis. Paragraph 7.3 describes the analysis in relation with prior researches. Next, paragraph 7.4 discusses the analysis stated in the previous paragraph in relation to the contribution to the literature of CSR and FP. Finally, a summary paragraph is included.

7.2 CSR and FP analyses

In this paragraph the outcomes will be analyzed in combination with the developed hypothesis. According to the multiple regression results in paragraph 6.4 the outcomes of both models differs. The outcome of both models presents that direction of the association between FP (ROA and EPS) and CSR is positive. The developed hypothesis for the analysis are presented once again.

H_0a: For the top fifty listed companies in EU, there is no positive association between CSR and FP using accounting-based measures.

H_1a: For the top fifty listed companies in EU, there is a positive association between CSR and FP using accounting-based measures.

H_1a is concerned about the positive association between CSR and FP using accounting-based measures. The outcome indicates a positive association between CSR and FP using accounting-based measure ROA. The positive association H_1a is concerned is significant, while the control variables risk, R&D intensity, and GRI are not significantly associated with ROA. The other control variables firm size, industry, and assurance big 4 are significantly associated with ROA. The first model supported the alternative hypothesis H_1a. Because ($P < 0,05$) the null hypothesis H_0a is rejected and the alternative hypothesis H_1a is accepted. This means that for the top fifty listed companies in EU, there is a positive association between CSR and FP using accounting-based measure ROA.

H_0b: For the top fifty listed companies in EU, there is no positive association between CSR and FP using market-based measures.

H_1b: For the top fifty listed companies in EU, there is a positive association between CSR and FP using market-based measures.

H_1b is concerned about the positive association between CSR and FP using market-based measures. The outcome indicates a positive association between CSR and FP using market-based measure EPS. However, the positive association H_1b is concerned is not significant, while the control variables firm size, risk, industry, GRI, and assurance big 4 is not significantly associated with EPS. R&D intensity is only significantly associated with EPS. The second model supported the alternative hypothesis H_1b. Because (P > 0,05) the null hypothesis H_0b is not rejected, but accepted and the alternative hypothesis H_1b is rejected. This means that for the top fifty listed companies in EU, there is no positive association between CSR and FP using market-based measure EPS

Hypothesis	**Accepted/Rejected**
H_0a: For the top fifty listed companies in EU, there is no positive association between CSR and FP using accounting-based measures.	Rejected
H_1a: For the top fifty listed companies in EU, there is a positive association between CSR and FP using accounting-based measures.	Accepted
H_0b: For the top fifty listed companies in EU, there is no positive association between CSR and FP using market-based measures.	Accepted
H_1b: For the top fifty listed companies in EU, there is a positive association between CSR and FP using market-based measures.	Rejected

According the robustness check we can interpret that the first model is better, because the R^2 (17,9%) of the first model is higher than the R^2 (3,7%) of the second model. A high R^2 means that the model better predicts the association between the dependent and independent variable. The interpretation of the above results suggest that the H_0a is rejected and H_1a is accepted. The second model is not significant (P > 0,05). According to these results we can say that the first model is significant, because the F-ratio is higher than the F-ratio of the second model. The first model suggest that the H_0a is rejected and the H_0b is not rejected, but the Pearson correlation shows more significant results. For the research question these outcomes means, that there is an association between CSR and FP. Especially, using ROA as an accounting-based measure shows that the association between CSR and FP is positive. These outcomes indicates that the use of CSR reports to disclose information increase the ROA of the listed

companies. However, these CSR reports decreases the EPS of the companies. The Legitimacy theory and the Stakeholder theory are chosen as a basis in this research. According to the outcomes of this research the expectations of the society and the stakeholders are affected with these CSR reports.

7.3 Analysis related to prior research

The association between CSR and FP is positive using accounting-based measure ROA. This outcome is consistent with the prior researches such as Waddock & Graves (1997) and Chin-Huang et al. (2009). Waddock & Graves (1997) reported that there is a positive association between CSP and FP and Chin-Huang et al. (2009) reported that there is a positive association between CSR and FP using accounting-based measure ROA. However, the study of Aras et al. (2010) showed that there is no association between CSR and FP using accounting-based measures for FP. On the other hand, Nelling and Webb (2009) presents that there is no association between CSR and FP, while using the traditional statistical technique OLS shows a positive association between CSR and FP. McGuire et al. (1988) argued that accounting based performance measure ROA can predict CSR better than market-based measures. The alternative hypothesis H_0b is accepted in this study, which is contrary with prior research of Pava and Krausz (1996). These researchers reported that social-responsible companies that used market-based measure EPS for FP showed little evidence that there is a positive association between CSR and FP.

7.4 Contribution to the literature

This research provides evidence regarding the association between CSR and FP of the top fifty listed companies from the EU to the literature of CSR and FP. The outcome regarding the association between CSR and FP of this research is to some extent consistent with prior researches such as Waddock & Graves (1997) and Chin-Huang et al. (2009). This study can helps in the debate of the association between CSR and FP of listed companies testing if shareholders cares about the increasing of ROA by CSR reports. Other contributions to the literature lay in the methodology of this study. The sample of the top fifty listed companies from the EU with various sectors is different from prior researches.

7.5 Summary

This chapter presents the analysis of this research and answered sub question six. The association between CSR and FP is positive. The outcome of this research regarding the H_1a

is that there is a positive association between CSR and FP using accounting-based measure ROA. This is to some extent consistent with the prior research of Waddock & Graves (1997) and Chin-Huang et al. (2009). The conclusions will be discussed in the final chapter of this research.

8. CONCLUSION

8.1 Summary

This research focuses on the association between CSR and FP of the top fifty listed companies from the EU. To answer the main question of this research seven sub questions were formulated.

The first sub question tries to find the background information of CSR. It describes the definitions of CSR, why managers have motives to report voluntary. Voluntary disclosure and CSR reporting can reduce the information-asymmetry that exists between managers and stakeholders. Providing more information to investors, cost of capital can be lowered, which will benefit the company. Next, information about how CSR is measured and the different CSR reporting guidelines. After a classification the GRI reporting guideline is selected, because it is the world's most widely used sustainability reporting framework by organizations. Finally, two common FP measurement approaches accounting- based and market- based measurement approach is described.

Next sub question tries to find which theories explains CSR. Most of the theories explain CSR. The PAT explains voluntary CSR disclosure by self-interest motives of company managers. Next, the Agency theory also explains CSR. According to this theory CSR disclosures are used by the agents to provide information to the principals that they are not working in their own interest. The political economy theory encompasses that managers reporting on CSR to gain legitimacy. Because of the wealth maximization assumption and the self-interest the PAT and Agency theory is not selected as a basis in this research. These two theories explain some good aspects. The Legitimacy theory and the Stakeholder theory are used as a basis in this research. Because the Legitimacy theory focuses on the expectations of society in general and with the CSR disclosure the right stakeholders can be reached.

The third sub question investigated prior research. There is an extended literature about the association between CSR and FP. The most often used research method in this field is the regression analysis. Next, most of these studies used the accounting-based measurement for FP. Other researchers used both the accounting- and market-based measurements for FP. The often used variable to measure FP is ROA. Several measurements are used to measure CSR. The results of these studies are mixed.

The fourth sub question explaining the developed hypothesis and research design which will try to give an answer in the main question. Two hypothesis are developed to find the association between CSR and FP. These hypothesis are tested with two models. The models tested on a sample of top fifty listed companies from the EU. The first hypothesis tests if there is a positive association between CSR and FP using accounting-based measure ROA. The second hypothesis tests if there is a positive association between CSR and FP using market-based measure EPS.

The fifth sub question tries to find the results of this research using multiple regression analysis. Further, the bivariate correlation between the variables is determined by the Pearson correlation. Finally, a robustness check is done to make sure, if the not significant variables in both models affects the final outcome of this research.

The sixth sub question tries to analyze the findings of this research. The first model supported the alternative hypothesis H_1a. Because ($P < 0,05$) the null hypothesis H_0a is rejected and the alternative hypothesis H_1a is accepted. The second model supported the alternative hypothesis H_1b. Because ($P > 0,05$) the null hypothesis H_0b is not rejected, but accepted and the alternative hypothesis H_1b is rejected. In the next paragraph sub question seven tries to find the conclusion of this research.

8.2 Conclusion

Prior studies focus mainly on the association between CSR and FP or the other way around. The available studies covering the association between CSR and FP did not perform this analysis for the EU listed companies. The purpose of this study is to investigate if there is an association between CSR and FP of the top fifty listed companies from the EU. Next, this thesis started with the following research question:

"Is there an association between CSR and FP of the top fifty listed companies from the EU?"

In order to help answering this research question seven sub questions were formulated. Next, the sample contains the top fifty listed companies form the EU selected by the highest turnovers. The sample period is 2009 to 2013. The developed hypothesis whether there is a positive association between CSR and FP using ROA or EPS. Further, the outcome is regressed by the multivariate regression. The findings provide any evidence on the association

between CSR and FP using ROA and therefore suggest that for the top fifty listed companies in EU, there is a positive association between CSR and FP using ROA. The findings also suggest that for the top fifty listed companies in EU, there is no positive association between CSR and FP using EPS.

8.3 Research limitations

This study suffers from some limitations. The first limitation of this study is the measurement method for CSR. As mentioned in paragraph 2.7 and paragraph 5.4.3, to measure CSR the AL's of the GRI reports are used. This measurement is subjectively chosen by the researcher. Other measurement indicators could result in different results for the quality of CSR disclosures of the same listed company. Next, there are many other ways that listed companies disclose information about their CSR (for example corporate websites and press releases). Information disclosed as mentioned earlier are not included in the measurement model. The actual disclosure quality could differ from the quality that is measured by the model of this study. Second limitation of this research is the research model that is used to measure the quality and reliability of CSR disclosures of listed companies that reports with GRI framework, third party assurance and the AL. The final limitation is that the results of this research cannot be generalized to the population of interest. The external validity is low.

8.4 Suggestions for future research

This paragraph describes the suggestions for future research. The suggestion for future research would be the possibility to do research developing a new measurement method for disclosures which obtains a higher level of objectivity than the existing models. Another suggestion for future research is to use other disclosure methods for companies to measure their CSR. A content analysis can be used as a more precise measure of standalone CSR reports. Another suggestion for future research is to include more information channels. Future research must also consider the different types of variables and the independence of the data values to generalize the conclusions based on the sample to a wider population of interest.

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APPENDICES

Appendix 1: Sample EU listed companies with highest turnovers

Company name	Country ISO code	Turnover in €
ROYAL DUTCH SHELL PLC	GB	327,254,739,629
BP PLC	GB	275,274,461,321
VOLKSWAGEN AG	DE	203,170,000,000
TOTAL S.A.	FR	171,873,000,000
GLENCORE XSTRATA PLC	GB	168,728,885,425
E.ON SE	DE	129,325,000,000
DAIMLER AG	DE	119,465,000,000
ENI SPA	IT	116,107,000,000
GDF SUEZ	FR	92,358,000,000
ENEL SPA	IT	80,535,000,000
AXA	FR	80,214,000,000
CARREFOUR SA	FR	76,674,000,000
BAYERISCHE MOTOREN WERKE AG	DE	76,500,000,000
BASF SE	DE	74,980,000,000
SIEMENS AG	DE	76,466,000,000
GENERALI ASSICURAZIONI SPA	IT	62,535,000,000
DEUTSCHE TELEKOM AG	DE	61,345,000,000
ARCELORMITTAL S.A.	LU	57,602,785,883
TELEFONICA SA	ES	57,561,000,000
DEUTSCHE POST AG	DE	56,485,000,000
REPSOL S.A.	ES	56,298,000,000
PEUGEOT S.A.	FR	54,109,000,000
RWE AG	DE	52,269,000,000
AUDI AG	DE	51,439,000,000
MUNCHENER RUCKVERSICHERUNGS-GESELLSCHAFT AKTIENGESELLSCHAFT	DE	51,060,000,000

Appendix 2: Sample EU listed companies with highest turnovers

Company name	Country ISO code	Turnover in €
BHP BILLITON PLC	GB	53,577,218,414
UNILEVER PLC	GB	49,797,000,000
CASINO GUICHARD-PERRACHON SA	FR	48,969,000,000
HSBC HOLDINGS PLC	GB	47,770,286,178
METRO AG	DE	47,499,000,000
OMV AKTIENGESELLSCHAFT	AT	43,040,815,000
COMPAGNIE DE SAINT GOBAIN SA	FR	42,025,000,000
VINCI	FR	41,301,000,000
BANCO SANTANDER SA	ES	41,035,000,000
RENAULT	FR	40,945,000,000
BAYER AG	DE	40,920,000,000
THYSSENKRUPP AG	DE	40,334,000,000
BNP PARIBAS	FR	39,257,000,000
RIO TINTO PLC	GB	37,963,213,860
PRUDENTIAL PLC	GB	36,422,809,171
A.P. MOLLER - MAERSK A/S	DK	35,881,767,897
BOUYGUES SA	FR	34,351,000,000
SANOFI	FR	33,997,000,000
CONTINENTAL AG	DE	33,606,700,000
BARCLAYS PLC	GB	33,553,357,645
GLAXOSMITHKLINE PLC	GB	33,454,246,336
IBERDROLA SA	ES	33,220,910,000
KONINKLIJKE AHOLD NV	NL	32,615,000,000
ANHEUSER-BUSCH INBEV	BE	32,161,555,451
DEUTSCHE BANK AG	DE	31,451,000,000

Appendix 3: Summarizing table of prior research (A)

Aspects / Author(s)	What did they investigate?	How did they do it?	Technique	Findings
McGuire (1988)	The relationship between concurrently, previously, and subsequently measured company performance and CSR.	Accounting- and stock-market-based measures are used to measure FP (stock returns, ROA, and growth in sales, assets, and income). Fortune magazine ratings of corporate reputations are used to measure CSP.	Correlation analyses Regression analyses	Accounting-based measures are better predictors of CSR than stock-market-based performance measures.
Moses L. Pava/ Joshua Krausz (1996)	The association between CSR and traditional FP.	Accounting- and market-based measures are used to measure FP (market return, P/E ratio, market-to-book value, ROA, ROE, EPS). CSP is measured by CEP report.	Descriptive statistics	Socially-responsible companies performed relatively much stronger in the second period, because using market-based measures. Little evidence suggest a positive linkage between CSR and traditional FP.
Sandra A. Waddock/ Samuel B. Graves (1997)	The relation between CSP and FP and the direction of the causation between these two variables.	Accounting-based measures are used to measure FP (ROA, ROE, and ROS). CSP index is constructed on the eight CSP attributes rated by KLD.	Regression analysis	There is a positive relationship between CSR and prior FP. CSP and future FP are also positively related.

Appendix 4: Summarizing table of prior research (B)

Aspects / Author(s)	What did they investigate?	How did they do it?	Technique	Findings
Abagail McWilliams/ Donald Siegel (2000)	The association between CSP and R&D, and how to make the correctly estimation.	Accounting-based measures are used and two omitted variables (investment in R&D and advertising) in an existing model. CSR is measured by KLD index and DSI400	Regression analysis	First CSP and R&D are strongly associated. Second when R&D intensity is included in the model CSP has a neutral effect on profitability.
Mark Orlitzky/ Frank L. Schmidt/ Sara L. Rynes (2003)	The assertion on the relationship between CSR and FP.	Accounting- and market based measures are used to measure CFP. CSR is measured by CSR disclosure reports, reputation indexes, social audits, corporation behaviors, processes, and outcomes, CSR values and attitudes.	Correlation and meta-analysis, content analysis	There is a positive relation between CSP and CFP.

Appendix 5: Summarizing table of prior research (C)

Aspects / Author(s)	What did they investigate?	How did they do it?	Technique	Findings
Bert Scholtens (2008)	The interaction between FP and SP. Does FP precede SP or does SP precede FP.	Market-based measure is used to measure FP. KLD index is used to measure SP.	OLS with the Distributed-lag model & the Granger causality test	There is a positive and significant interaction between FP and SP. FP precede SP much more than SP precede FP.
Edward Nelling/ Elizabeth Webb (2009)	The causal relation between CSR and FP.	Accounting- and market-based measures are used to measure FP (ROA and common stock returns). KLD Socrates Database is used to measure CSR.	OLS regression analyses Granger causality analysis Tobit models	There is no evidence that CSR affects a firm's FP.
Chin- Huang Lin/ Ho- Li yang/ Dian- Yan Liou (2009)	The relation between CSR and FP of the Taiwanese business.	Accounting-based measure is used to measure FP (ROA). "donation'' is used as a proxy CSR variable.	Regression analysis	There is a positive relation between CSR and FP. CSR has not so much positive impact on the short-term FP.

Appendix 6: Summarizing table of prior research (D)

Aspects / Author(s)	What did they investigate?	How did they do it?	Technique	Findings
José M. Moneva/ Eduardo Ortas (2009)	The evaluation of the relation between CEP and CFP.	Accounting-based measures are used to measure CFP. CEP is measured by 4 dimensions: ED, EMS, PREI, and EC.	PLS model	Firms with a high level (intensive) CEP lead to improved CFP in a later period.
Güler Aras/ Asli Aybars/ Ozlem Kutlu (2010)	The relationship between CSR and FP of listed companies in Turkey.	Accounting based measures are used for FP (ROA, ROE, and ROS). Content analysis of annual reports are used to measure CSR.	Regression analysis	There is no link between CSR and FP. There is only relationship between firm size and CSR.
Theofanis Karagiorgos (2010)	The relationship between CSR and companies FP in Greece.	Market-based measure is used to measure FP (stock returns). Content analysis of CSR annual reports are used to measure CSR.	Descriptive statistics Correlation matrix Regression analyses	There is a positive and significant correlation between stock returns and CSR in Greek companies.
Wan Suhazeli Wan Ahamed/ Mahmoud Khalid Almsafir/ Arkan Walid Al-Smadi (2014)	The relationship between CSR and CFP of the Malaysian companies.	Accounting-based measures are used for FP (ROA and ROE). Content analyses of annual reports is used to measure CSR.	Regression analyses	There is a positive linkage between CFP and CSR in Malaysian companies.

Appendix 7: E.U. top fifty listed companies industry classification

EU Listed companies	US SIC code	Industry
ROYAL DUTCH SHELL PLC	1311	Crude Petroleum & Natural Gas
BP PLC	2911	Petroleum Refining
VOLKSWAGEN AG	3711	Motor Vehicles & Passenger Car Bodies
TOTAL S.A.	1311	Crude Petroleum & Natural Gas
GLENCORE XSTRATA PLC	1499	Miscellaneous nonmetallic minerals
E.ON SE	4911	Electric Services
DAIMLER AG	3711	Motor Vehicles & Passenger Car Bodies
ENI SPA	1311	Crude Petroleum & Natural Gas
GDF SUEZ	4923	Natural Gas Transmission & Distribution
ENEL SPA	4911	Electric Services
AXA	6311	Life Insurance
CARREFOUR SA	5411	Retail-Grocery Stores
BAYERISCHE MOTOREN WERKE AG	3711	Motor Vehicles & Passenger Car Bodies
BASF SE	2899	Chemicals and chemical preparations
SIEMENS AG	3825	Instruments for Meas & Testing of Electricity
GENERALI ASSICURAZIONI SPA	6311	Life Insurance
DEUTSCHE TELEKOM AG	4812	Radio Telephone Communications
ARCELORMITTAL S.A.	3325	Steel foundries, not elsewhere specified
TELEFONICA SA	4812	Radio Telephone Communications
DEUTSCHE POST AG	4311	United States postal service
REPSOL S.A.	1311	Crude Petroleum & Natural Gas
PEUGEOT S.A.	3711	Motor Vehicles & Passenger Car Bodies
RWE AG	4911	Electric Services
AUDI AG	3711	Motor Vehicles & Passenger Car Bodies
MUNCHENER RUCKVERSICHERUNGS-GESELLSCHAFT AKTIENGESELLSCHAFT	6311	Life Insurance

Appendix 8: E.U. top fifty listed companies industry classification

EU Listed companies	US SIC code	Industry
BHP BILLITON PLC	1241	Coal mining services
UNILEVER PLC	2099	Food preparations
CASINO GUICHARD-PERRACHON SA	5411	Retail-Grocery Stores
HSBC HOLDINGS PLC	6712	Offices of bank holding companies
METRO AG	5311	Retail-Department Stores
OMV AKTIENGESELLSCHAFT	1311	Crude Petroleum & Natural Gas
COMPAGNIE DE SAINT GOBAIN SA	3211	Flat Glass
VINCI	1542	General contractors-Nonresidential buildings
BANCO SANTANDER SA	6021	National Commercial Banks
RENAULT	3711	Motor Vehicles & Passenger Car Bodies
BAYER AG	2834	Pharmaceutical Preparations
THYSSENKRUPP AG	3312	Steel works, blast furnaces, and rolling mills
BNP PARIBAS	6021	National Commercial Banks
RIO TINTO PLC	1099	Miscellaneous metal ores
PRUDENTIAL PLC	6311	Life Insurance
A.P. MOLLER - MAERSK A/S	4731	Arrangement of Transportation of Freight & Cargo
BOUYGUES SA	1629	Heavy construction
SANOFI	2834	Pharmaceutical Preparations
CONTINENTAL AG	3011	Tires and Inner Tubes
BARCLAYS PLC	6712	Offices of bank holding companies
GLAXOSMITHKLINE PLC	2834	Pharmaceutical Preparations
IBERDROLA SA	4911	Electric Services
KONINKLIJKE AHOLD NV	5411	Retail-Grocery Stores
ANHEUSER-BUSCH INBEV	2082	Malt Beverages
DEUTSCHE BANK AG	6021	National Commercial Banks

Appendix 9: EU 50 listed companies CSR performance score table

EU 50 listed companies	CSR scores				
	2009	2010	2011	2012	2013
ROYAL DUTCH SHELL PLC	7	7	7	7	7
BP PLC	7	7	7	7	1
VOLKSWAGEN AG	7	7	1	7	7
TOTAL S.A.	1	1	1	1	1
GLENCORE XSTRATA PLC	1	1	1	7	7
E.ON SE	5	5	5	5	5
DAIMLER AG	7	7	7	7	7
ENI SPA	5	1	1	1	7
GDF SUEZ	1	1	5	1	5
ENEL SPA	7	7	7	7	7
AXA	1	1	1	1	1
CARREFOUR SA	1	1	1	1	1
BAYERISCHE MOTOREN WERKE AG	1	7	1	7	7
BASF SE	7	7	7	7	7
SIEMENS AG	7	7	7	7	7
GENERALI ASSICURAZIONI SPA	4	4	6	6	6
DEUTSCHE TELEKOM AG	7	7	7	7	7
ARCELORMITTAL S.A.	1	4	1	2	2
TELEFONICA SA	7	7	7	7	6
DEUTSCHE POST AG	5	5	5	5	5
REPSOL S.A.	7	7	7	7	7
PEUGEOT S.A.	1	1	7	7	6
RWE AG	7	7	7	1	7
AUDI AG	1	1	1	5	5
MUNCHENER RUCKVERSICHERUNGS-GESELLSCHAFT AKTIENGESELLSCHAFT	4	4	4	4	4

Appendix 10: EU 50 listed companies CSR performance score table

EU 50 listed companies	CSR scores				
	2009	2010	2011	2012	2013
BHP BILLITON PLC	7	7	7	7	7
UNILEVER PLC	1	1	1	1	1
CASINO GUICHARD-PERRACHON SA	1	1	1	1	1
HSBC HOLDINGS PLC	2	2	2	2	2
METRO AG	1	1	1	4	1
OMV AKTIENGESELLSCHAFT	7	7	7	7	7
COMPAGNIE DE SAINT GOBAIN SA	1	5	7	7	7
VINCI	1	1	1	1	1
BANCO SANTANDER SA	7	7	7	7	7
RENAULT	1	1	1	1	1
BAYER AG	7	7	7	7	7
THYSSENKRUPP AG	1	1	1	1	1
BNP PARIBAS	1	1	1	1	1
RIO TINTO PLC	1	1	1	1	7
PRUDENTIAL PLC	1	1	2	2	2
A.P. MOLLER - MAERSK A/S	3	3	3	3	2
BOUYGUES SA	1	1	1	1	1
SANOFI	2	2	5	5	5
CONTINENTAL AG	1	1	1	1	2
BARCLAYS PLC	5	5	5	4	4
GLAXOSMITHKLINE PLC	1	1	1	1	1
IBERDROLA SA	7	7	7	7	7
KONINKLIJKE AHOLD NV	5	5	5	5	5
ANHEUSER-BUSCH INBEV	1	4	4	1	2
DEUTSCHE BANK AG	6	7	7	7	7

Appendix 11: Regression ROA

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	ASSCSRRB4, IND, RDINT, Risk, CSR , Firm size, GRI[a]	.	Enter

a. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,424[a]	,179	,156	2,7272455

a. Predictors: (Constant), ASSCSRRB4, IND, RDINT, Risk, CSR , Firm size, GRI

b. Dependent Variable: ROA

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	391,773	7	55,968	7,525	,000[a]
	Residual	1792,526	241	7,438		
	Total	2184,299	248			

a. Predictors: (Constant), ASSCSRRB4, IND, RDINT, Risk, CSR , Firm size, GRI

b. Dependent Variable: ROA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17,096	4,824		3,544	,000
	CSR	,033	,116	,030	,287	,775
	Firm size	-,545	,188	-,219	-2,892	,004
	Risk	-18,973	16,156	-,085	-1,174	,241
	IND	-,175	,060	-,216	-2,934	,004
	RDINT	-,111	,058	-,120	-1,918	,056
	GRI	-,064	,645	-,010	-,099	,922
	ASSCSRRB4	,924	,399	,153	2,316	,021

a. Dependent Variable: ROA

Appendix 12: Regression EPS

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	ASSCSRRB4, IND, RDINT, Risk, CSR , Firm size, GRI[a]	.	Enter

a. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,193[a]	,037	,009	2,8421785

a. Predictors: (Constant), ASSCSRRB4, IND, RDINT, Risk, CSR , Firm size, GRI

b. Dependent Variable: EPS

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	75,305	7	10,758	1,332	,236[a]
	Residual	1954,871	242	8,078		
	Total	2030,176	249			

a. Predictors: (Constant), ASSCSRRB4, IND, RDINT, Risk, CSR , Firm size, GRI

b. Dependent Variable: EPS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7,286	5,025		1,450	,148
	CSR	,083	,121	,078	,685	,494
	Firm size	-,151	,196	-,063	-,768	,443
	Risk	-26,471	16,813	-,124	-1,574	,117
	IND	-,018	,062	-,023	-,283	,777
	RDINT	-,134	,060	-,150	-2,231	,027
	GRI	-,227	,672	-,038	-,338	,736
	ASSCSRRB4	-,492	,415	-,085	-1,184	,237

a. Dependent Variable: EPS

Appendix 13: Test of normal distribution ROA and descriptives

Descriptives

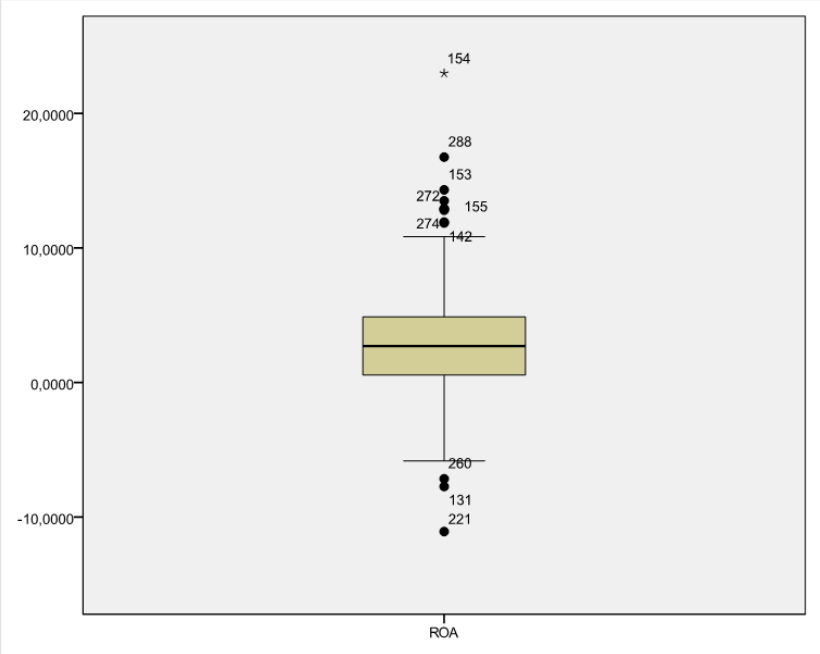
			Statistic	Std. Error
ROA	Mean		2,847371	,1880748
	95% Confidence Interval for Mean	Lower Bound	2,476944	
		Upper Bound	3,217799	
	5% Trimmed Mean		2,838789	
	Median		2,783009	
	Variance		8,808	
	Std. Deviation		2,9677696	
	Minimum		-4,8845	
	Maximum		10,6387	
	Range		15,5232	
	Interquartile Range		4,0866	
	Skewness		,174	,154
	Kurtosis		,286	,307

Tests of Normality

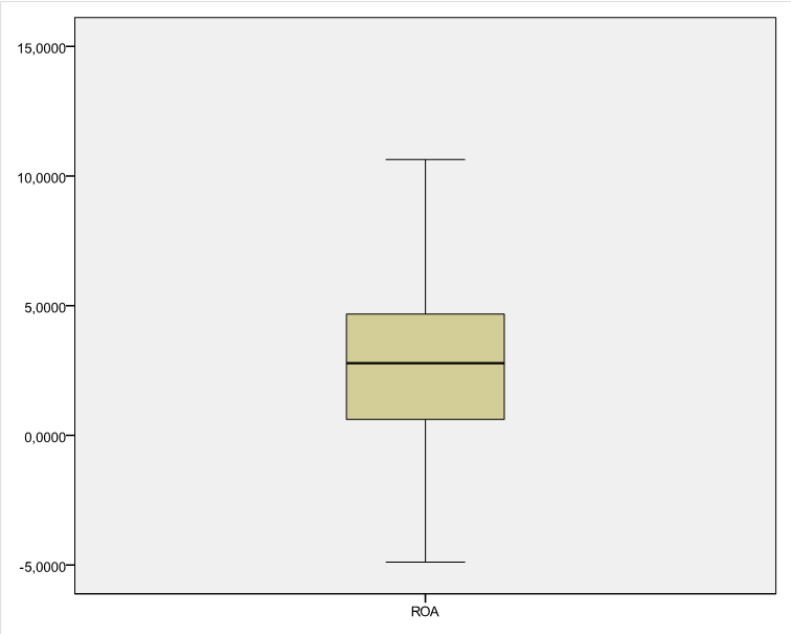
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ROA	,096	249	,000	,978	249	,001

a. Lilliefors Significance Correction

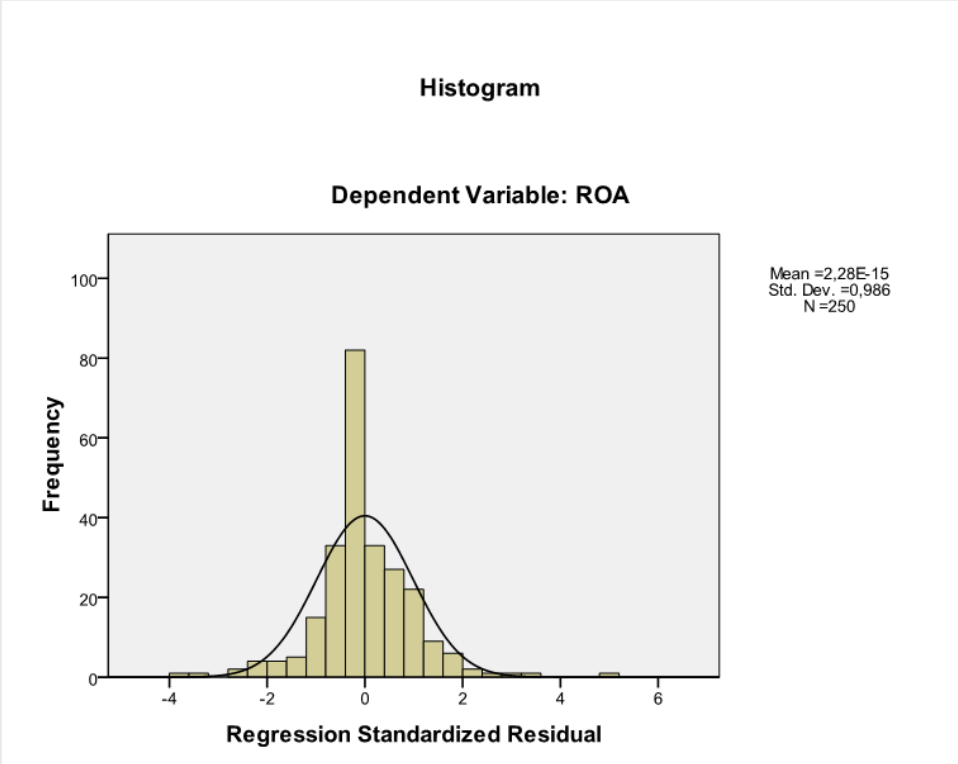
Boxplot ROA before winsorizing



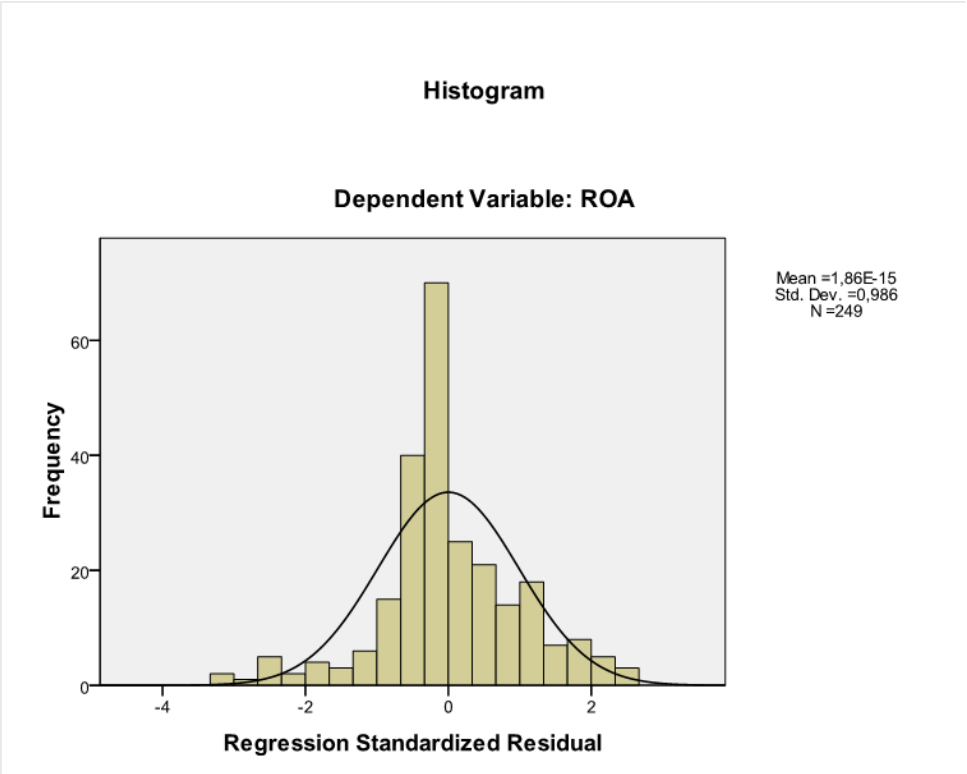
Boxplot ROA after winsorizing

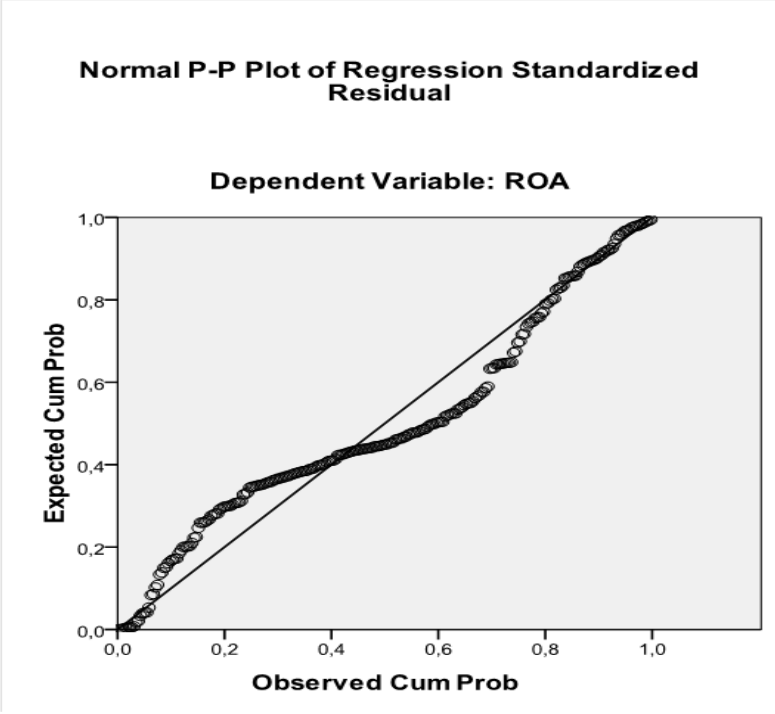


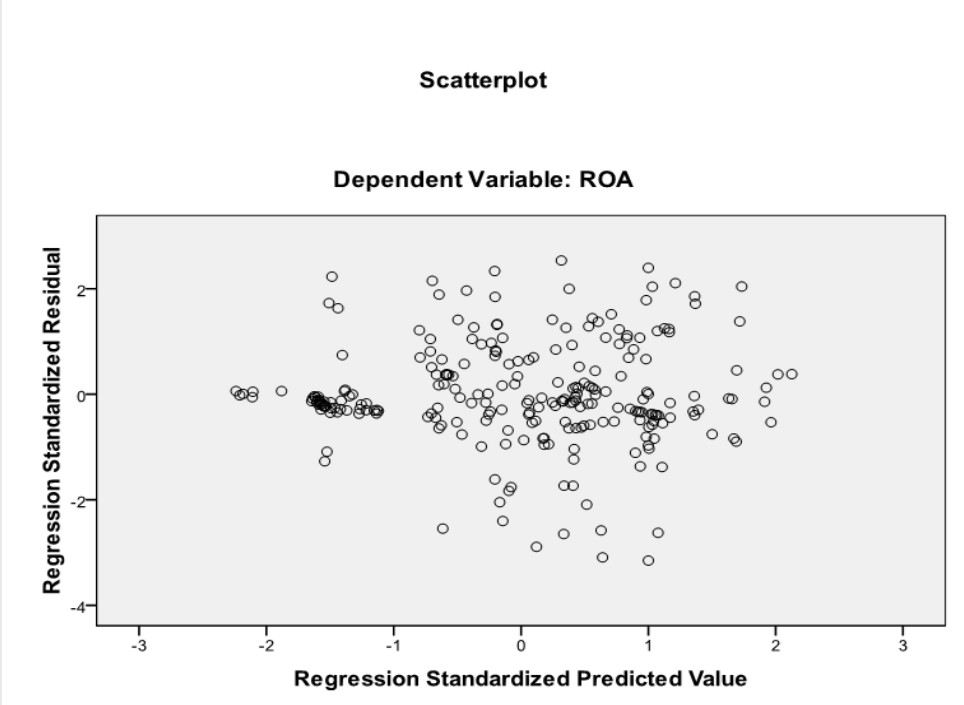
Histogram ROA before winsorizing



Histogram ROA after winsorizing






Scatterplot
Dependent Variable: ROA
Regression Standardized Residual
Regression Standardized Predicted Value
2
0
-2
-4
-3
-2
-1
0
1
2
3

Appendix 14: Test of normal distribution EPS and descriptives

Descriptives

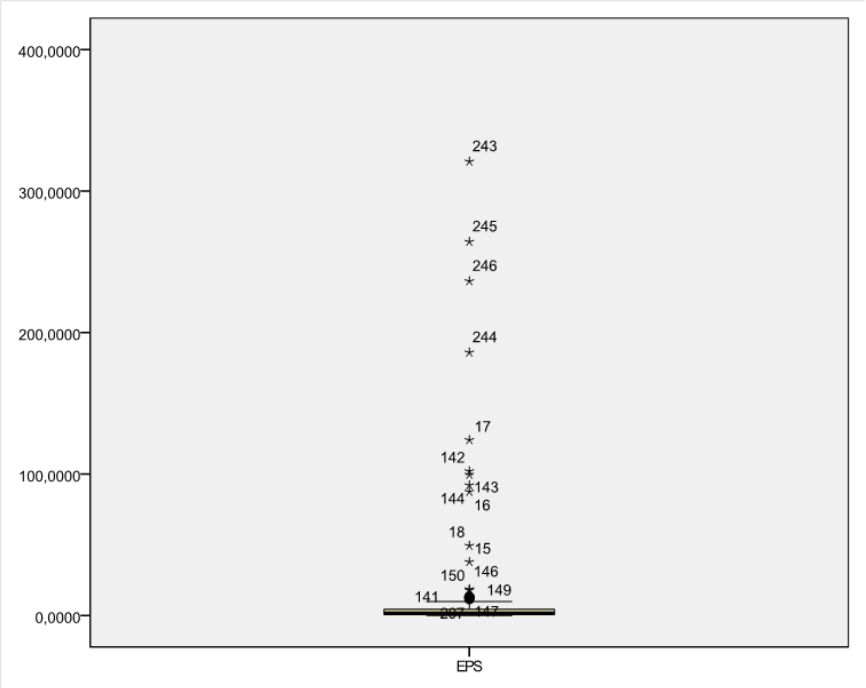
			Statistic	Std. Error
EPS	Mean		2,931390	,1805914
	95% Confidence Interval for Mean	Lower Bound	2,575709	
		Upper Bound	3,287072	
	5% Trimmed Mean		2,744991	
	Median		1,880000	
	Variance		8,153	
	Std. Deviation		2,8554012	
	Minimum		,0000	
	Maximum		9,8100	
	Range		9,8100	
	Interquartile Range		3,9425	
	Skewness		,976	,154
	Kurtosis		-,186	,307

Tests of Normality

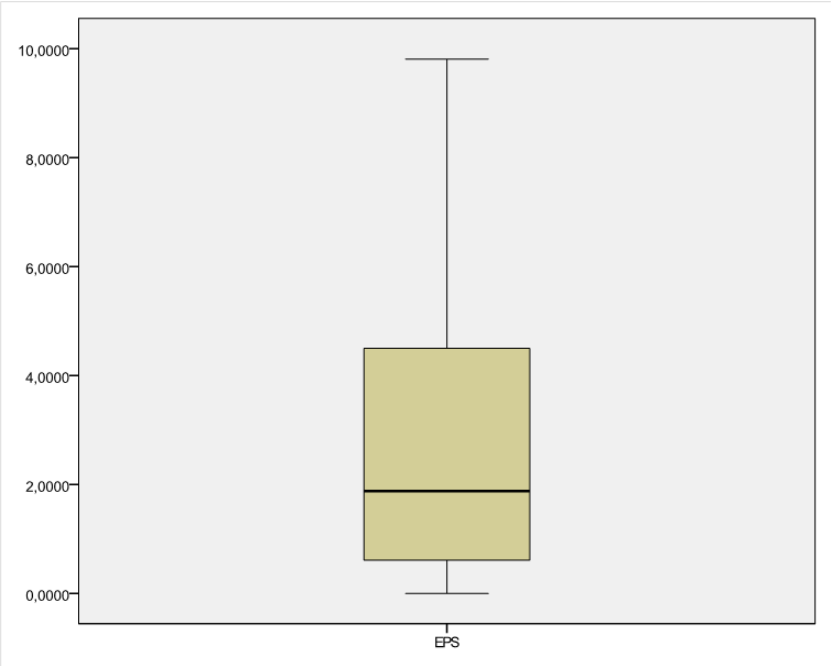
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
EPS	,155	250	,000	,859	250	,000

a. Lilliefors Significance Correction

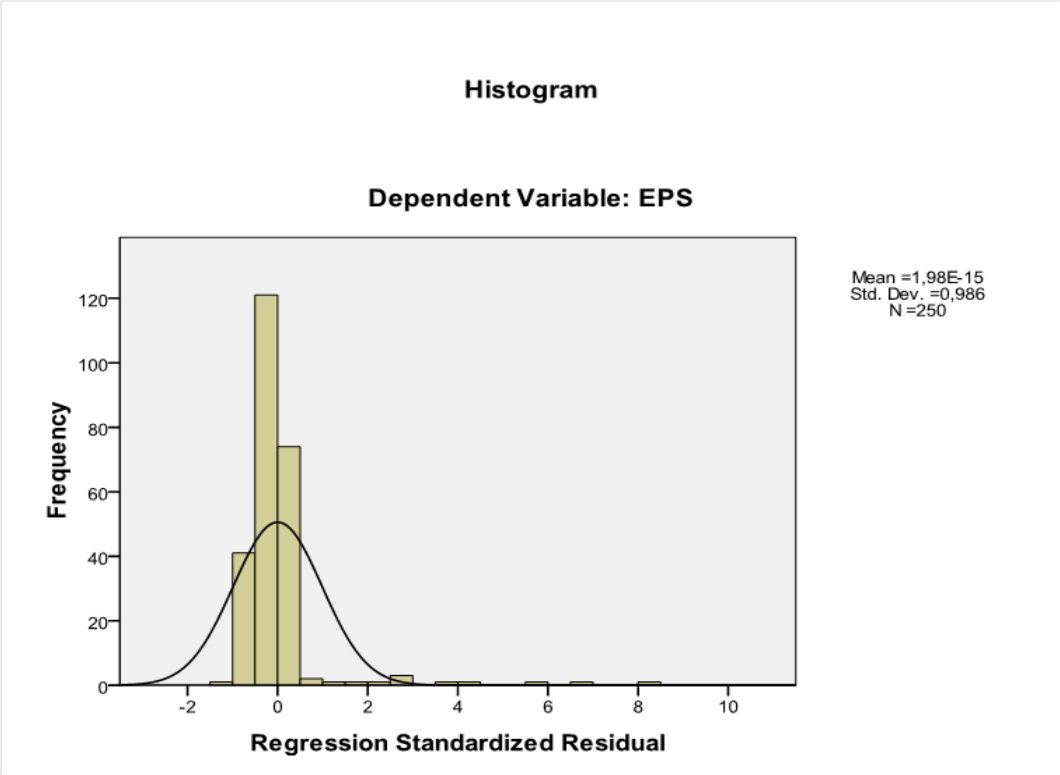
Boxplot EPS before winsorizing



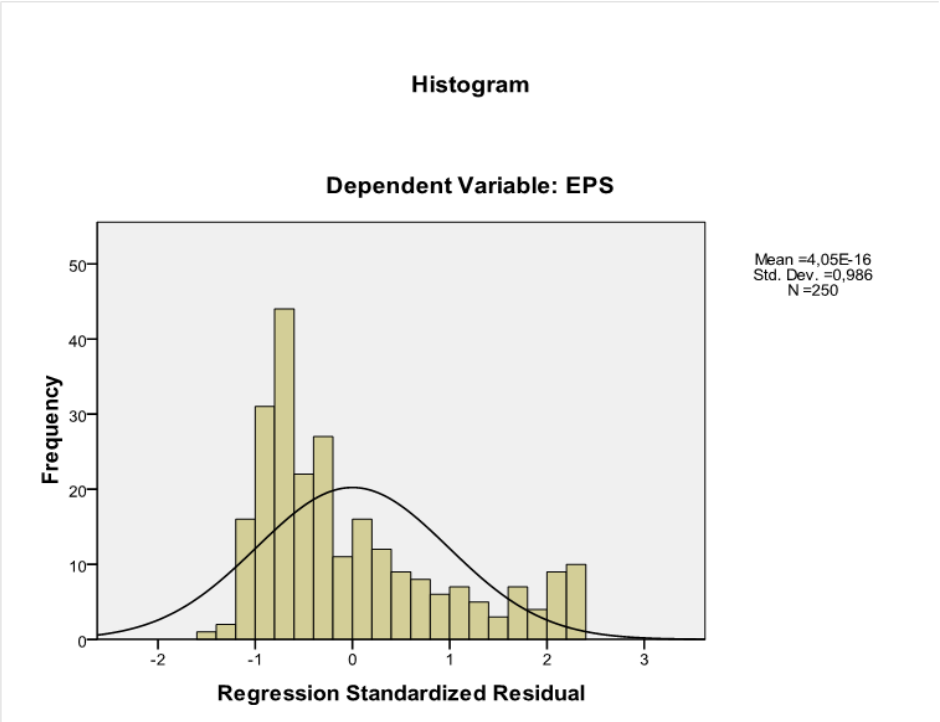
Boxplot EPS after winsorizing

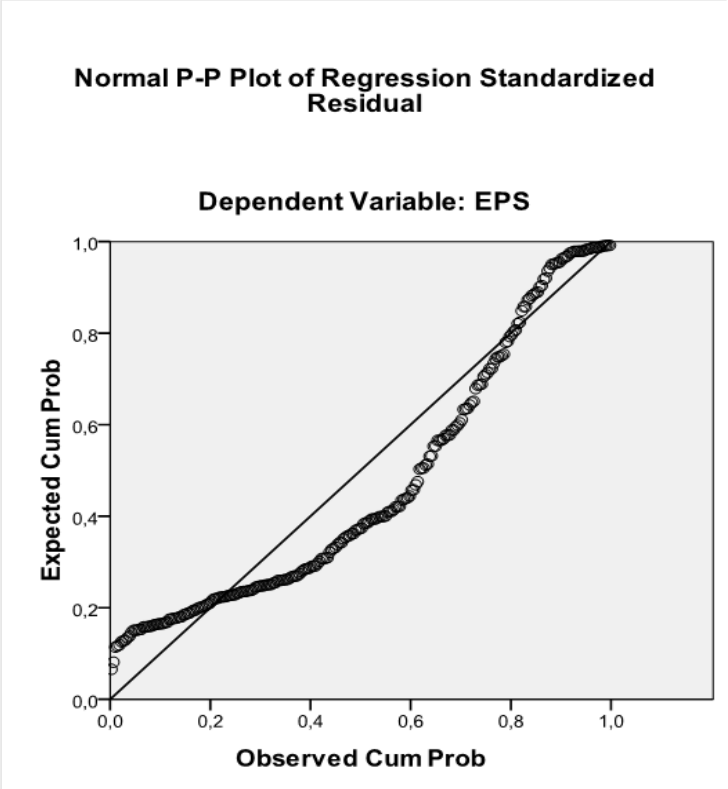


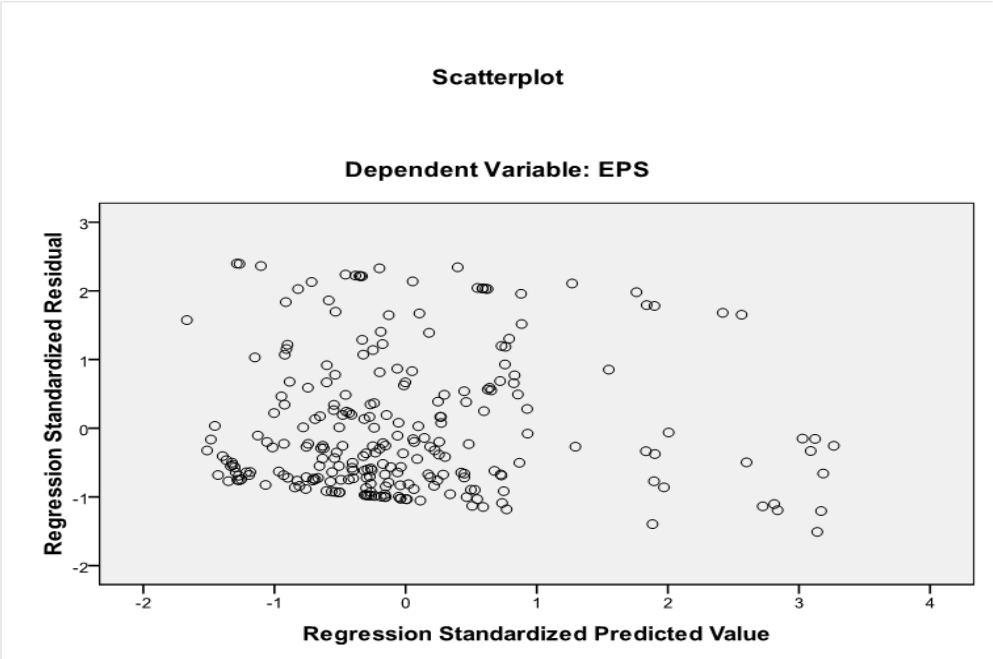
Histogram EPS before winsorizing



Histogram EPS after winsorizing






Scatterplot
Dependent Variable: EPS
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-2
-1
0
1
2
3
4

Appendix 15: Multicollinearity ROA and EPS

Correlations

		ROA	CSR	Firm size	Risk	IND	RDINT	GRI	ASSCSRRB4
ROA	Pearson Correlation	1	,078	-,301**	,140*	-,335**	-,221**	,036	,160*
	Sig. (2-tailed)		,219	,000	,027	,000	,000	,572	,012
	N	249	249	249	249	249	249	249	249
CSR	Pearson Correlation	,078	1	,107	,096	-,127*	,025	,794**	,424**
	Sig. (2-tailed)	,219		,091	,129	,044	,689	,000	,000
	N	249	250	250	250	250	250	250	250
Firm size	Pearson Correlation	-,301**	,107	1	-,522**	,490**	,219**	,157*	,026
	Sig. (2-tailed)	,000	,091		,000	,000	,000	,013	,685
	N	249	250	250	250	250	250	250	250
Risk	Pearson Correlation	,140*	,096	-,522**	1	-,414**	-,200**	-,085	-,043
	Sig. (2-tailed)	,027	,129	,000		,000	,001	,181	,503
	N	249	250	250	250	250	250	250	250
IND	Pearson Correlation	-,335**	-,127*	,490**	-,414**	1	,337**	,054	-,020
	Sig. (2-tailed)	,000	,044	,000	,000		,000	,394	,751
	N	249	250	250	250	250	250	250	250
RDINT	Pearson Correlation	-,221**	,025	,219**	-,200**	,337**	1	,053	,023
	Sig. (2-tailed)	,000	,689	,000	,001	,000		,401	,721
	N	249	250	250	250	250	250	250	250
GRI	Pearson Correlation	,036	,794**	,157*	-,085	,054	,053	1	,448**
	Sig. (2-tailed)	,572	,000	,013	,181	,394	,401		,000
	N	249	250	250	250	250	250	250	250
ASSCSRRB4	Pearson Correlation	,160*	,424**	,026	-,043	-,020	,023	,448**	1
	Sig. (2-tailed)	,012	,000	,685	,503	,751	,721	,000	
	N	249	250	250	250	250	250	250	250

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

*. Correlation is significant at the 0.05 level (2-tailed).

Correlations

		CSR	Firm size	Risk	IND	RDINT	GRI	ASSCSRRB4	EPS
CSR	Pearson Correlation	1	,107	,096	-,127*	,025	,794**	,424**	-,007
	Sig. (2-tailed)		,091	,129	,044	,689	,000	,000	,907
	N	250	250	250	250	250	250	250	250
Firm size	Pearson Correlation	,107	1	-,522**	,490**	,219**	,157*	,026	-,042
	Sig. (2-tailed)	,091		,000	,000	,000	,013	,685	,507
	N	250	250	250	250	250	250	250	250
Risk	Pearson Correlation	,096	-,522**	1	-,414**	-,200**	-,085	-,043	-,037
	Sig. (2-tailed)	,129	,000		,000	,001	,181	,503	,560
	N	250	250	250	250	250	250	250	250
IND	Pearson Correlation	-,127*	,490**	-,414**	1	,337**	,054	-,020	-,063
	Sig. (2-tailed)	,044	,000	,000		,000	,394	,751	,320
	N	250	250	250	250	250	250	250	250
RDINT	Pearson Correlation	,025	,219**	-,200**	,337**	1	,053	,023	-,149*
	Sig. (2-tailed)	,689	,000	,001	,000		,401	,721	,018
	N	250	250	250	250	250	250	250	250
GRI	Pearson Correlation	,794**	,157*	-,085	,054	,053	1	,448**	-,022
	Sig. (2-tailed)	,000	,013	,181	,394	,401		,000	,725
	N	250	250	250	250	250	250	250	250
ASSCSRRB4	Pearson Correlation	,424**	,026	-,043	-,020	,023	,448**	1	-,068
	Sig. (2-tailed)	,000	,685	,503	,751	,721	,000		,286
	N	250	250	250	250	250	250	250	250
EPS	Pearson Correlation	-,007	-,042	-,037	-,063	-,149*	-,022	-,068	1
	Sig. (2-tailed)	,907	,507	,560	,320	,018	,725	,286	
	N	250	250	250	250	250	250	250	250

*. Correlation is significant at the 0.05 level (2-tailed).

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

Appendix 16: Robustness check ROA

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	IND, ASSCSRRB4, Firm size[b]	.	Enter

a. Dependent Variable: ROA

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.404[a]	.163	.153	2.7318621

a. Predictors: (Constant), IND, ASSCSRRB4, Firm size

b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	355.846	3	118.615	15.894	.000[b]
	Residual	1828.452	245	7.463		
	Total	2184.299	248			

a. Dependent Variable: ROA

b. Predictors: (Constant), IND, ASSCSRRB4, Firm size

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.024	4.125		3.642	.000
	Firm size	-.465	.167	-.187	-2.793	.006
	ASSCSRRB4	.972	.353	.161	2.749	.006
	IND	-.196	.054	-.241	-3.593	.000

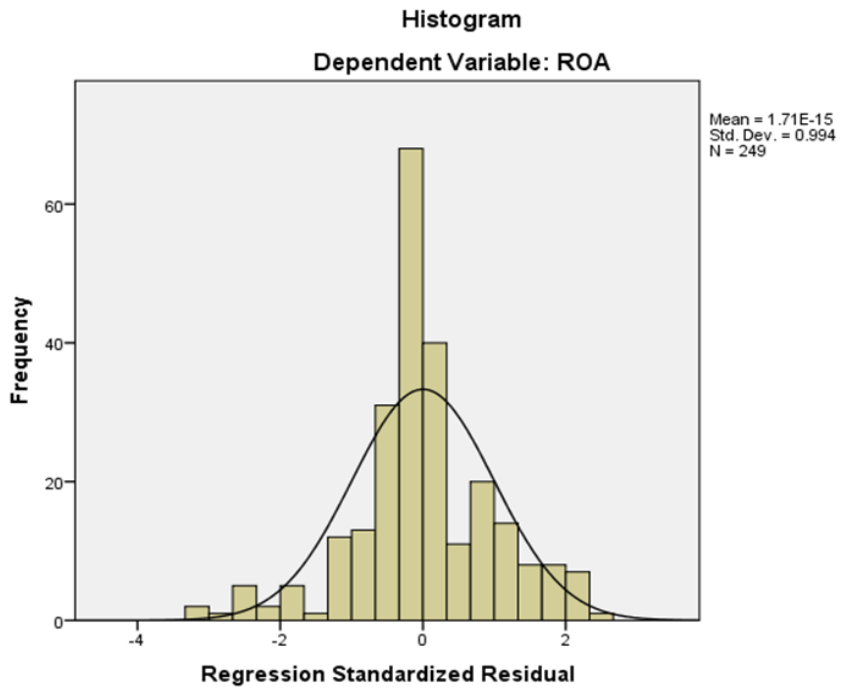
a. Dependent Variable: ROA

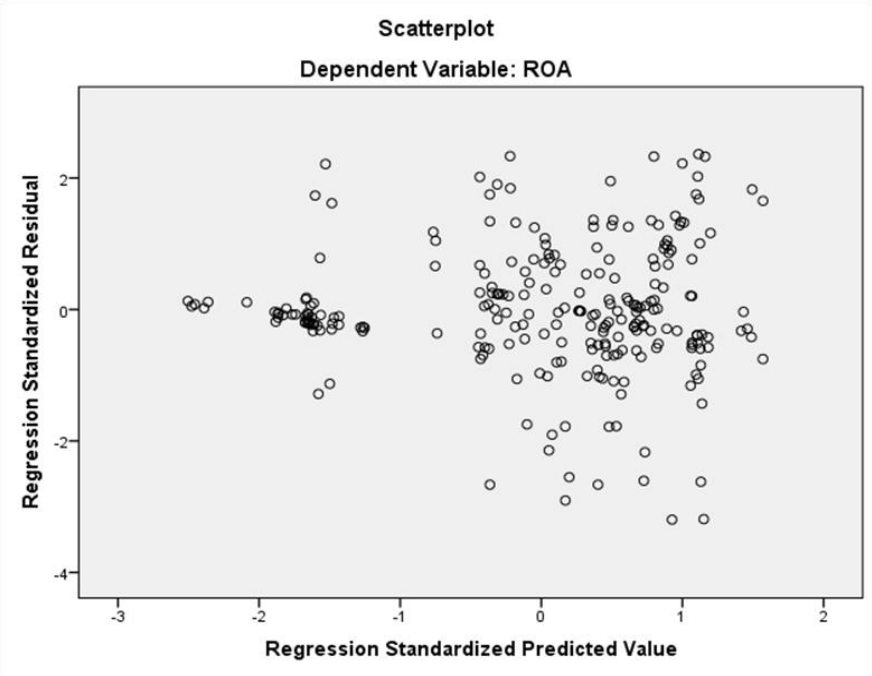
Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.152221	4.729288	2.847371	1.1978583	249
Residual	-8.7344837	6.4568915	.0000000	2.7152885	249
Std. Predicted Value	-2.504	1.571	.000	1.000	249
Std. Residual	-3.197	2.364	.000	.994	249

a. Dependent Variable: ROA

Histogram ROA after robustness check





Appendix 17: Robustness check EPS

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	RDINT[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: EPS

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,149[a]	,022	,018	2,8291873

a. Predictors: (Constant), RDINT

b. Dependent Variable: EPS

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	45.109	1	45.109	5.636	.018[b]
	Residual	1985.067	248	8.004		
	Total	2030.176	249			

a. Dependent Variable: EPS

b. Predictors: (Constant), RDINT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.716	.201		13.547	.000
	RDINT	-.133	.056	-.149	-2.374	.018

a. Dependent Variable: EPS

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.716486	4.794185	2.931390	.4256302	250
Residual	-4.2959385	7.0935144	.0000000	2.8235004	250
Std. Predicted Value	-.505	4.377	.000	1.000	250
Std. Residual	-1.518	2.507	.000	.998	250

a. Dependent Variable: EPS

Histogram EPS after robustness check