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Relationship between Corporate Social Responsibility (CSR) and Corporate Financial Performance in the European Oil, Gas and Mining Industries

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Preface

The present study is an attempt concerning the practices of Corporate Social responsibility (CSR) in Oil, Gas, and Mining companies within the European Union.

Although SCR reporting is a fast and vast increasing trend among the large businesses around the world, it is still a relatively new and unknown phenomenon for many. Unlike the rapidly growing trend of CSR reporting, the conducted number of researches in this field has not reached the similar level compared to the other topics in the business' realm. The need for more researches in this field is the immediate reason behind choosing for this topic and such researches in the EU are relatively of smaller amounts compared with the United states. Consequently, in order to increase the volume of researches in this field and to mitigate the gap between the two areas of business, namely the EU and the United States, conducting such studies will be meaningful.

This paper is an effort to construct a body of knowledge by providing a considerable insight into the relationship between CSR reporting and the financial returns, and the incentives of managements for presenting such reports. The obvious advantage of spending time in reading of this study is to understand "how and to what extent" can CSR practices affect the financial returns.

The interesting part of this research is the use of various economic theories in chapter two and their reflection on the outcomes of previous studies in chapter three, from which this research will take advantage to justify the results.

The present research consumed two years and an enormous burden to be born and presented, although going through this process and accomplishing it, was a reward, which significantly contributed such valuable knowledge to the researcher, regarding economic, business, and accounting.

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Executive Summary

Companies consider corporate social responsibility (CSR) as a voluntary framework to maintain their competitiveness in order to gain more reputation and legitimacy in the communities where companies are operating, which might lead to much more lucrative results.
Despite the rapid increase of implementing CSR policies among the companies, this issue has received no certain consensus among the academician whether voluntary providing CSR reporting will have an impact on the financial performance of the companies. Besides, the relevance of the relationship is the essential division of this issue, which is mainly anchored in the views of the managers concerning their CSR policies.

The cardinal objective of this study is to scrutinize whether applying CSR policies by the companies will influence the financial performance of Oil, Gas, and Mining industries within the European Union. To formulate this objective, the main question of this research is figured as: "***Does a relationship exist between CSR performance and financial performance in Oil, Gas and Mining firms within the EU?"***
In relation to the main question, five hypotheses are formulated in which the first three of them namely H1, H2, and H3 concern with the direction and strength of the relationship and the last two H4 and H5 consider the statistical association between CSR and financial performance.

This study uses the definition of CSR by Mc Williams and Siegel (2001, P. 117) that describes CSR activities as: *"actions that appear to further some social good, beyond the interests of the firm and that which is required by law."*

The existence and use of CSR reporting can be better justified by theories such as agency theory. A new perspective of agency theory considers the firm as an agent and the stakeholders as the principal. In this view, the principal receives a new identification that includes a wide range of parties such as governments, media, suppliers, employees, customers, labor unions, and NGOs. These parties monitor the agent concerning social and environmental issues, which they address in societies where the agent operates. In this regard, these signaled groups thus force the corporation to be socially responsible (Mantysaari, Petri, 2008). Unlike the agency theory, stewardship theory indicates that the management acts as a steward for the corporation in the interest of the principal. This consequently causes that a stewards render significantly high corporate performance (Donaldson and Davis, 1991). In alignment with previous theories, legitimacy theory implies that the society expects corporation to repair the damage to the environment or prevent it from happening, to suffice the health- safety of the labors, consumers and those who live in the community. With relatively the same view, stakeholder theory indicates that all required resources are in the possession of the stakeholders, hence to acquire these resources, the manager of the firm should meet the demands of the stakeholders. These demands are in this case more transparency, accountability and a fair reporting about the resources that transformed from the stakeholders to the firms (Robert, 1991, p. 598).

The relationship between CSR performance and the financial performance among the large companies and the increasing trend in the first decade of the new century can also be justified and explained by several supplementary theories such as Slack resources theory, Trade off theory, Managerial opportunism theory, and Good management theory.

Slack resources theory implies that availability of the slack resources will increase when financial performance is positively evaluated by the stakeholders, which consequently creates opportunity for the management to invest in CSR activities McGuire et al (1988, p. 856 and 1990, p. 173). Unlike the slack resources theory, the notion of trade-off theory confirms the idea that firms with strong social activities relatively have lower stock price in proportion to the market average, which will decrease the competitiveness abilities of CSR firm (Preston and O'Bannon, 1997, p. 421). Similar to agency theory, managerial opportunism theory also believes that managers expect to be rewarded at the expense of the owners of the firms by presenting a short- run profit. Consequently, this behavior creates a negative relationship between CSR performance and financial performance as the stakeholders evaluate the financial performance positively. As a derivative idea from the stakeholder theory, good management theory delineates a positive correlation between good management practices and the CSR activities. It is obvious that when firms exercises CSR activities, then they create better ties with their key stakeholders and this enhances the competitiveness and productivity of the firms (Waddock and Graves 1997, p. 306).
The relationship between CSR performance and financial performance is distinguished between two areas. First area that called the analysis of the sign of the relationship is concerned with the direction and strength of the relationship, which is seeking whether the two main variables would be in the same positive or negative direction. Consequently, the results were used to reject or accept the hypotheses H1, H2, and H3 that signaled before. After fulfilment of this analysis, the outcomes show that the hypotheses 2 and 3 should be rejected since there is a negative relationship between CSR performance measurement indicators and financial performance measurement indicators. With respect to previous explanations, the outcomes rejected the hypotheses H2 and H3 and instead the hypothesis H1***"A negative relationship exists between CSR performance and financial performance of the firms."*** is accepted.

The second area that this research evaluated is the analysis of the statistical association, in which two main variables concerning the Oil, Gas and Mining firms quoted in European stock exchanges are analyzed in different years from 2006 to 2010. To conduct this analysis, a main regression model was developed as follows: $FP_t = CSRP_{t-1} + Size_{t-1} + Industry.$ From this model, 24 formulae were developed regarding the previously signaled hypotheses. With respect to the hypotheses H 4 and H5, the model concerns with analyzing whether CSR performance measurement indicators as independent variables will be associated with the financial performance measurement variables in the period of 2006-7, 2007-8, 2008-9 and 2009-10. Size is calculated by total assets and/or sales, t-1equals to the starting point or initial year, and t equals to the next year. The outcomes derived from ANOVA and Coefficient analyses indicate that hypothesis H4 is rejected, but instead, H5 ***"Corporate social responsibility reporting is not necessarily associated with financial performance."*** is accepted.

Contents

1 Introduction

1.1 Introduction

Since 1972, the world's leaders have met every 10 years to address the state of the world's environment and the impacts of the development on this issue. This issue that is known as "sustainable development" was for the first time applied in a report by Brundtland Commission in 1987.
Heads of governments attended a United Nation Conference on "the Human Environment in Stockholm, Sweden" in 1972 to discuss the global environmental issues for the first time.
In 1982, the UN summit held in Nairobi Kenya failed in its attempt to unite the world's leader on an agreement regarding sustainable development issue.
By 1992, the world's priorities had changed, so the UN Conference on Environment and Development known as the Earth Summit held in Rio de Janeiro, remains the largest gathering of the world leaders in history.
The 2002 Earth Summit, in Johannesburg, South Africa, was performed in a changing world. Distribution of the world's wealth was increasingly polarized – creating sustainable development the centerpiece of this year's Earth Summit (Greenpeace archive).
Earth Summit 2012 that held in Rio de Janeiro was the fifth Summit of this kind, which represents another juncture in continuing the international efforts to accelerate progress towards the achieving of sustainable development globally (Earth summit 2012).

This timeline shows that the society's awareness of sustainability has increasingly mounted. Consequently, the sustainability reporting is turning to be a pertinent subject for the management of the firms. Sustainability reporting includes knowledge about the economic, environmental, and social dimensions of firms regarding the societies where they operate as well as the effect that firms would have on societies (Council for annual reporting, 2003, p. 33). Firms can explain to their stakeholders that they are aware of their responsibilities, rights and obligations at different grounds. Correspondingly, firms can incessantly keep a dialogue with their stakeholders through the sustainability reporting. In addition, a further benefit of sustainability reporting is the rise of firm's abilities to be more profitable. Several examples on the topic of sustainability can for instance be; presenting innovative ideas for the new market opportunities, developing the awareness about risks, improving the status of the firm, enhancing and maintaining the motivation of employees, and extenuating any opportunity of emerging potential tension between the firm and the stakeholders (council for annual reporting, 2003, p. 35). It implies that the important part in CSR reporting is accountability and transparency (DAISD, 2005, p. 3). The escalating relevancy of sustainability reporting initiates several guidelines set by firms, legislatures and society.

The relationship between firms Corporate Social Responsibility activities (CSR) and their financial performance is not a new topic. It has been the subject of several lively debates since 1960 (Cochran and Wood, 1984).
With the beginning of 21st century, taking CSR policies in to account by companies has been noticeably growing in the world. In 2004, approximately 90% best performing companies of the Fortune 500 companies have invested in their CSR efforts (Lichtenstein et al., 2004).
Since CSR is all about the firm's social responsibility, and it raises concerns about the society and their complicated relations, Corporate Social Responsibility (CSR) nowadays has been

considered as an integral part of the corporate strategy. Consequently, stockholders or corporate owners solely cannot be the only relevant factor that potentially could have the advantage from the firm's activities, but rather a broader concept of beneficiaries will. To open the issue, it is essential to identify a distinction between the concepts such as stockholders and stakeholders.

1.2 **Shareholders versus Stakeholders' concept**

For many people, the main goal (for some people the only goal) of an entity is to generate profit concerning shareholders' benefit.
Milton Friedman (1962, p. 133) in his book the Capitalism and Freedom cited that, for the corporate managers, no moral obligations exist. He noted; *"In a free economy, a business has only one social responsibility, and that is using their resources and engaging in activities which designed to increase profit, as long as it stays within rules of the game. In other words; it engages in an open and free competition, without deception or fraud."*

However, Clarkson (1995, p. 103) indicated that Friedman like other neo-classical economists separated business from society and denied the necessity and the validity of the concept of corporate social responsibility. In the last decade, as the business became more complicated, globalized and knowledge oriented, changes observed to occur rapidly. The changes in the international business caused revision on the essence and the content of corporate reporting. It implies that a company would not only be held responsible for its shareholders, but the responsibility of a business reaches beyond this group. Consequently, the concept of stakeholder is more relevant rather than the shareholder solely.
The stakeholder creates a wider insight which is defined as different parties that are affected by or influenced by organizations, and this is accompanied with the definition that stated by Gray, Owen and Adams (1996, p. 47). Gray, Owen and Adams (1996, p. 47- 77) described society as; *"a series of social contracts among members of the society and the society itself."*
In the framework of CSR, another possible option might not be that businesses are acting in an accountable way due to their commercial interest; but concerning businesses' operations, this is an element that society expects implicitly.

Using a broader meaning of the accountability, it is not only providing financial performance for shareholders, but also rather representing sustainable performance to the stakeholders. In this regard, the traditional views about competitiveness, survival, and profitability have been changed (CACCI conference, 2006).
Stakeholders' concern about social, ethical, and environmental issues has increasingly grown. Consequently, managers have the tendency to assure the stakeholders that their companies are perpetually improving and initiating new ideas to achieve and to maintain a sustainable competitive edge. In this regard, alongside with generating profit, managers need to consider the environmental, ethical, and social issues as one of their central concerns. With respect to the sustainability, managers should be socially responsible (Kamp-Roelands, 2002, P. 13).
As Shell UK's chairman in the Report to Society in 1998 signaled: *"the days when individual companies were judged solely in terms of the economic performance and wealth creation, have long disappeared. Today, companies have far wider responsibilities to the community, to the environment and to the improving the quality of life for all* (Deegan, 2006, p. 298)*"*, this is consistent with CSR. In addition, he included; *"Nowadays success in a business is not*

only measured by financial results alone, but also by having a standard of care in everything that matches society's expectations" (Deegan, 2006, p. 298).

1.3 CSR

Corporate Social Responsibility (CSR) can be translated as the way that firms consider their social, environmental, and economic concerns and incorporate them in their values and principles, cultures, decision-making processes, strategies and operations (Advisory group report, 2007).

Carroll (1991, p. 4-6) believes that a total picture of CSR has four components or categories of responsibilities that is accepted by a businessperson and required by the society. This can be depicted as a pyramid that includes Economic, Legal, Ethical, and Philanthropic categories. The last one contains social and environmental responsibilities. In recent years, in business reporting, ethical and philanthropic responsibilities became significantly meaningful.

Based on this perspective, firms are viewed as part of a larger economic system in which their operations might affect components of the system and consequently the system itself (Hawken, 1993; Rasmussen, 1997). Society nowadays is putting pressure on companies whose irresponsible actions toward the society and the environment have become a cost to society (Beltratti, 2005).

The European commission defined CSR as; *"Incorporating of social and environmental concerns in the business operations and interaction with their stakeholders on a voluntary basis* (http://europa.eu/legislation)*."*

Mc Williams and Siegel (2001) defined CSR as: "*actions that appear to further some social good, beyond the interest of the firm and that which is required by law*." The importance of these definitions is that CSR practices are going beyond the firm's legal and contractual obligations, but they are on the voluntary basis, such as being employee-friendly, environment-friendly, and mindful of ethics, respectful to communities where firms or their branches are located, and even investor-friendly (Benabou and Tirole, 2010).

1.4 Economic benefits of CSR

Tsoutsoura (2004, P. 6), Brine and Brown Hackett (2006) in different studies believe that the adoption of CSR in the firm's policy, to some extent, will be lucrative for firms; however, it would not be realized quarterly or in a short run.

Reputation and market position

In order to increase the firm's image brand and reputation, in the first place, practicing CSR issues will be beneficial. Companies concern with the way they will be judged by customers, suppliers and the community which will have a vast impact on their profitability and success. Consequently, goods and services produced by firms with a good reputation in CSR issues for customers will be more favorable. Furthermore, maintaining a well-structured reputation vis-à-vis CSR issues will encourage the business partners in the requirements of the returning capital.

Risk management

A second benefit for firms is the fact that the risk of negative events of CSR will decrease. CSR disclosure and transparency, in addition, will decrease the risk of corruptions. Besides, firms with CSR issues need to keep some qualities and consequently implement several social and environmental controls that can reduce the risk of defective products and penalties for eventual excessive pollution.

Operation efficiency

Thirdly, CSR policy will encourage management to operate effectively, and this reduces firms' operating cost. As an example changing and reducing material used in packaging or setting some certain optimal routes for trucks to deliver goods can reduce the operating cost.

Recruitment and motivation

Additionally, CSR firms will be able to attract and maintain more and more highly qualified employees, which eventually causes saving in the expenses of recruitment and training. On the other hand, employees will evaluate whether CSR performance in their work place is in conformity with their personal values.

Improving working condition and labor practices will increase the productivity of the firm. However, creating good conditions for employees will be costly for CSR firms, but this regulation will increase the firm's productivity and improve their quality that can generate positive cash flows which covers the signaled costs.

Investors and capital

Hill and Knowltown (2007) indicated that recent surveys show that analysts pay as much attention to corporate reputation as they do to financial performance. By the investment communities, CSR policy is qualified as long-term risk management which in long-term will reduce cost of capital.

Although identifying benefits derived from CSR policy will be possible, it will be difficult to quantify and measure their effects on the business separately.

It would be ideal when all other factors are constant and then measure the company's cash flow before and after the adopting of CSR; however, empirical methods are used to identify the relationship between the incorporated CSR and the Corporate Financial Performance. Studies have been conducted in short / long term, within different industries and in different countries, which produced different results that vary from each other. These relationships could be positive, negative, or even sometimes neutral.

Cochran and Wood (1984, p. 42) believed that researchers have not yet attained a general concession regarding the association between the two variables. The important role of managers in implementing and encouraging or reducing and underestimating of CSR policies is a highly relevant factor, which can influence this association. With having a positive relationship between CSR and the corporate financial performance, management will encourage CSR activities while a negative relationship between these variables within a company will result in the reduction of CSR activities.

1.5 Objectives

As signaled earlier, this topic increasingly has being embraced by many researches across the world and draws academic attention to this issue. Most of the researches have been performed in the United States of America (USA). Since different methods have been used in the conducted researches, this diversity causes a problem when the outcomes of those studies are compared to each other. Although the researches in this field in Europe have increased, still shortcomings exist concerning such researches in the European Union (EU). In order to detect different outcomes within the continent, it is essential to conduct different researches in this new field. The European approach regarding the structure and management of the organizations, due to their law and legislation in many aspects, varies from the Anglo-Saxon approach. One of the main objectives of conducting this research is to fill the signaled gap in the economic literature. Besides, it can encourage companies to

adopt CSR on a voluntary basis, depends on the outcomes and findings. Consequently, the ultimate purpose of this research is to analyze the relationship between CSR and the financial performance of European Oil, Gas, and Mining companies.

1.6 **Research question**

This study uses the question below as the main research question:
Does a relationship exist between the use of CSR and corporate financial performance within the European listed Oil, Gas, and Mining companies?
In order to explain and answer the main question, following sub-questions need to be answered:

1- What are the definition and content of CSR?
2- What are the definition and content of financial performance?
3- What are the explanatory theories to support the use of CSR?
4- What were CSR measurement indicators in the previous studies?
5- What were measurement indicators for financial performance in the previous studies?
6- What were the outcomes of the previous studies, regarding the relationship between CSR and financial performance?
7- Which explanatory theories will describe and justify the relationship between CSR and financial performance?
8- What are the results of the previous studies regarding the relation between CSR and financial performance?
9- Which measurement indicators for CSR are used in this research regarding Oil, Gas and Mining companies within the EU?
10- Which financial measurement indicators are used in this research for Oil, Gas and Mining companies within the EU?
11- What is the relationship between CSR and financial performance within the Europeans listed Oil, Gas, and Mining companies? Is the relationship positive, negative, or neutral?
12- What is the statistical association between CSR- and financial performance concerning Oil, Gas and Mining companies within the EU?

1.7 **Methodology**

With respect to analysis and measuring the incorporated CSR policies reflected in the sustainability reports, and consequently the impact on the financial performance, two different models exist i.e. content analysis and reputation indices. Besides, they are both equally accepted with their relative limitations. Since annual reports of companies need to be reviewed for finding CSR components in these reports, a content analysis will be conducted. A content analysis, which analyzes written words, is a quantitative method. The results of the content analysis will be numbers and percentages.
The main CSR indicators will be derived from the European GRI indices. A content analysis will be performed by analyzing and evaluating the companies' selected annual reports or other separate reports for the years 2006 to 2010. For this analysis and the scoring model, the evaluation model of Dutch Ministry of Economic Affairs (MEZ) will be used.
The data of financial performances for the years 2006 to 2010 are derived from the financial databases.
To examine the relation between the two dependent and independent variables, their predetermined hypotheses will be tested by means of a regression analysis. Pearson

correlation coefficient model calculates the direction and strength of the relationship between two variables. Hence, this research will use this model to determine whether a positive, negative, or neutral relationship would exist between CSR and financial performance.

1.8 **Demarcation**

The extent of this research will be restricted to the European Oil, Gas and Mining firms, quoted on the stock exchanges in their concerning countries, which are members of the European Union. For this reason, the outcomes of this research are restricted to the European stock exchanges. These outcomes will not be comparable with the results of other continents.
The required data will be selected from the financial databases such as Thomson One Banker and Worldscope that are available at the Library of the Erasmus University.
Focusing on CSR performance, this information will be derived from a content analysis of the selected annual reports and/or other CSR reports or other potential sources concerning the sample.

1.9 **Structure**

The structure of this study is in conformity with the previously stated sub-questions. Besides, each chapter provides an introduction.
The theoretical background concerning this research will be presented in chapter 2. In this chapter, sub-questions 1 to 3 will be answered. It presents the definitions of CSR and the financial performance. In addition, the economic theories concerning the existence and the relationship between CSR- and financial performance will be commented.
Furthermore, chapter 3 is allocated to prior researches, which will elaborate on the relationship between CSR- and the financial performance in previous studies and will answer the sub-questions 4 to 7. The signaled prior researches will chronologically introduce information regarding the previous research methods and their findings.

Chapter 4 consists of hypotheses that are formulated based on the theoretical model commented in chapter 2 and the prior researches. These hypotheses will be classified into two areas. The first area focuses on the signs of the relationship between CSR and the financial performance i.e. the direction and the strength of the relationship. The second area concentrates on the statistical association between these two variables. These hypotheses will be tested in chapter 6, namely the empirical section of this research.
Chapter 5 contains the definitions and the methodology used in this research. This chapter answers the sub-questions 8 and 9. In addition, CSR- and the financial performance indicators will be presented, and this study will elaborate further on these measurement indicators for the Oil, Gas and Mining industries in Europe. To measure CSR, based on an evaluation model, scores will be assigned to the annual- or CSR reports over the years 2006 to 2010. The required data for this research will be obtained from the financial database, which is available at the library of Erasmus University.
The samples and the scope of this study will also be commented in this chapter.
The empirical section of this research will be discusses in chapter 6. With respect to the hypotheses, various statistical tests will be conducted to evaluate the relationship between CSR- and the financial performance indicators. The program used for this purpose is SPSS.
Additionally, the sub questions 10 and 11 will be answered based on the finding apropos the existence of any potential relationship between CSR and financial performance.

In chapter 7, the conclusion of this research will be presented, which will answer the main research question.
Besides, the limitations that this research confronted and elements for further research will be presented.

2 Theoretical background

2.1 Introduction

This chapter will review theories regarding CSR and financial performance. In this chapter, sub-questions 1 to 3 will be answered. This review of accounting theories concerning CSR is the theoretical framework of this research. Initially, Paragraphs 2.2 through 2.7 present the supporting literature. This contains theories such as agency theory, stewardship theory, social contracts, legitimacy theory, stakeholder theory, and corporate citizenship theory. In addition, paragraphs 2.8 and 2.9 will define CSR performance and financial performance. Furthermore, paragraphs 2.10 to 2.14 will discuss several supplementary theories regarding CSR and the relationship with the financial performance, which will also be used in chapter four as explanatory theories that will support the hypotheses. Paragraph 2.15 contains the definition and various aspects of Global Reporting Initiative (GRI) and the explanations concerning CSR that will be a basis for measuring CSR. Finally, this chapter ends with the summary in paragraph 2.16.

2.2 Agency theory

Apparently, the main point of the agency theory considers the fact of defining the term rationality in economic and the role of self-interest in human life. According to the traditional view, the primary agency theory included and described rational actors such as the owners or principals and the executives or agents who strive toward maximizing their individual utility. In this concept, the theory depicts top managers in the large modern organization as agents whose interest may diverge from the interest of their principals or shareholders of the corporation (Jensen & Meckling, 1976, p. 305). Principals contract with executives to manage their firms for them. In this regard, because managers recognize the opportunity to maximize their own utility, they receive an agent status. As an agent, a manager is morally responsible for maximizing the shareholders' benefit. If the benefit of the agents accompanied with the benefits of the principals, no agency problem would exist, but agency costs incurred when the interest of the principal and the agent would diverge from each other and also information asymmetries exist, because, based on the opportunity, agents will rationally maximize their utility at the expense of their own principals. Consequently, the aim of the agency theory is to reduce the agency costs by conducting internal control to monitor the agents' self-serving and interest (Davis, Schoorman and Donaldson, 1997, p. 22).

To protect the shareholders' interests, minimize agency costs, and ensure the agent-principal interest alignment, agency theories prescribe governance strategies and mechanisms. Two mechanisms that have received substantial scientific literary attention are the alternative executive compensation plans and the governance structures. A new view of agency theory extends the principal-agent relationship to broader groups of principals (stakeholders) rather than solely the shareholders. Hence, because the corporation is considered as an agent itself, the corporation will be forced by the stakeholders, to act in a socially responsible way. In this regard, local community and society, employees, customers and public, and the state are drivers for corporations to improve their relation with those powerful groups in the society in which the corporation is acting. Consequently, companies need to implement strategies and policies such as CSR to satisfy and meet their

stakeholders' needs (Mantysaari, Petri, 2008). Agency theory provides a useful way of explaining the differences of the interests among the involved parties. These differences may be taken into conformity with each other by applying appropriate supervising and a well-structured bonus plans (Davis, Schoorman and Donaldson, 1997, p. 23). Some additional theories are needed to explain other types of human being's behavior; consequently, in the next paragraph the stewardship theory will be commented.

2.3 **Stewardship theory**

Unlike the agency theory, which has the origin in economics, the stewardship theory has roots in psychology and sociology. Donaldson and Davis (1991) developed it as a model to indicate that the senior executives act as stewards for the corporation in the interest of the principals. In the stewardship theory, the behavior of a steward is based on being pro-organizational and collectivistic rather than self-serving and individualistic. The steward will choose a pro-organizational behavior and will not substitute the self-serving behavior for the cooperative one. Consequently, the steward will not depart from the interest of his or her organization. Even an alignment exits between his (her) interest and that of the principals'. The steward will place a higher value on the cooperation than on a self- interest behavior (Davis, Schoorman and Donaldson, 1997, p. 24).

This description of the stewardship theory does not indicate that stewards have no survival needs; undoubtedly, the stewards need to have an income to survive. The difference between the agent and the principal is in which way these needs are met. In a trade-off between personal needs and organizational objectives, the steward realizes that working towards the organizational and collective ends lead to the fact that his personal needs will be met. In agreement with the fact that the steward relationship is more beneficial for the principals rather than the agency relationship, so why not always a steward relationship exists? The answer is the risk that principals are willing to assume. In the governance contract between the owners and the agents, owners need to decide the level of risk they are willing to assume with their wealth. Risk-averse owners will assume that managers are striving toward their self-interest and would prefer the agency governance to the stewardship one. Imagining that all managers are either agents or stewards; researchers have taken efforts to confirm either agency theory or stewardship theory is the best way to corporate governance.

Since the findings of those studies have resulted in mix outcomes, for the explanation of management's behavior, both signaled theories are equally essential (Davis, Schoorman and Donaldson, 1997, p. 25-26). Several researchers found that the agency prescription of the independent board leadership (e.g. a non-executive board chair) associated with higher performance (Berg & Smith, 1978; Daily & Dalton, 1994; Rechner & Dalton, 1991). Other researchers found that a stewardship's executive-chaired board has significantly high corporate performance (Donaldson & Davis, 1991; Finkelstein & D'Aveni, 1994). On the other hand, some researchers still believe that no considerable difference exists in firm performance between the executive-chairs and the outsider-chairs. As signaled before; in order to form a wider perspective regarding the relationship among management, stockholders and other powerful participants, principals are not only stockholders but the term stakeholders can be used. Since management acts as a steward in favor of principals and have a pro-organizational and collective behavior, it will be more beneficial for the

corporate governance and the manager to incorporate CSR policies in the interest of stakeholders as a broader concept of principals.

2.4 **Social contracts**

Gray, Owen, and Adams (1996, p. 47-77) describe society as *'a series of social contracts between members of a society and the society itself.'* In the context of CSR, an alternative possibility is that businesses might act in a responsible manner not because it is in their commercial interest, but it is a part of expectations that a society has from a business. The social contract suggests that organizations continually seek to sufficer the stakeholders that they are performing within the principles and the norms of their respective societies. It is based on the notion that a social contract exists between an organization and the society. These contracts oblige a firm to voluntary operate on activities as the management perceives that the community is expecting these activities from the firm (Guthrie, J, Petty, R. and Yongvanich, K., 2004).

The legitimacy theory describes that organizations continuously attempt to operate within the legal and the moral obligation of the society. The outside parties then qualified their activities as being 'legitimate'. A 'social contract' between the society and the concerning organization is defined in the legitimacy theory.

2.5 **Legitimacy theory**

Ramanathan (1976), Abbott, and Monson (1979) considered profit maximization as the optimal measure of corporate performance. Expectations of the public regarding social issues including health and safety of employees and the environment have significantly changed, due to an increase in legislation in the last decades. Heard and Bolce (1981) explained that the growth of social expectations is an indicator for successful corporations that reacted to human, environmental and other social consequences.

Tinker and Neimark concluded that the society has two expectations from the businesses;

- Businesses undertake several criteria at their expense in order to restore any potential damage to the physical environment.
- Businesses are concerned about the health, and the safety of consumers, employees, and the residents of those communities where products are manufactured and wastes are dumped (Tinker and Neimark, 1987, p. 84).

The legitimacy theory underlines the fact that organizations have to reflect the rights of the public at large, and not just the investors. If the organization fails to comply with these expectations, the public can react in a negative manner, by reducing the demand, limit the resources, or by legal restrictions.

Dowling and Pfeffer (1975) described the resources of a legitimate activity by an organization as:

- Organization can adjust their end product, objectives, and methods of operation to conform to the predominant interpretation of legitimacy.
- By way of communication, the organization can change the definition of social legitimacy with the intention that this definition will be consistent with the organization's present practices, outputs, and values.
- Organizations can become recognized with symbols through communication, principles, or institutions that provide a robust base of legitimacy.

In order for an organization to obtain or maintain legitimacy, Lindblom (1994) finds four courses of action that have some overlaps with Dowling's and Pfeffer's findings. He indicates that organizations can do the following;

- Seeks to educate and inform their 'relevant publics' about (actual) changes in the organization's performance and activities.
- Seeks to change the perception of the 'relevant publics' – but not change their actual behavior.
- Seeks to manipulate the perception by deflecting attention from the issue of concern to other related issues through an appeal to, for example, emotive symbols.
- Seeks to change the external expectations of their performance.

Dowling, Pfeffer, and Lindblom described strategies for organizations to disclose information publicly, for example, in the annual financial reports. Organizations can consequently draw attention to their strengths, for example, environmental awards, precautionary measures for safety, societal steps, or even aid help. For example, to draw attention away from negative implications of companies activities, such as pollution or accidents at the workplace. In this manner, the legitimacy theory is about managing the perceptions of others.

2.6 **Stakeholder theory**

Managerial view

The stakeholder theory recognizes two views, namely ethical and managerial. The descriptive part of this theory deals with the managerial view. The theory attempts to illuminate that firms or the management will meet the expectation of the powerful stakeholders. Gray, Owen, and Adams (1996) believe that this view is 'organization-centered'. With this respect, the organization identifies the stakeholders by reference to the extent to which the organization will believe that the interaction with each group needs to be managed in order to foster the interest of the organization' (Deegan 2006, p. 272).
This theory considers the organization as part of a wide social system. Like the legitimacy theory, the stakeholder theory, in addition, believes that the expectation of the different groups will influence firm's operation and policies of disclosure. The power of the stakeholders is viewed as a function of control over resources, which is required by the firm. An organization is considered successful when it satisfies the demands of the various powerful groups of the stakeholders (Ullmann 1985). According to Freeman (1984) who commented the dynamics of the stakeholder's influence on the corporate decision, 'One of the important roles of the management is to evaluate the importance of stakeholders' demands that should be met in order to achieve the strategic objectives of the firm' (Roberts 1992, p. 598).

Ethical view

Ethical branch is more considered as normative or the prescriptive branch of the studies, which argues that all stakeholders have the right to be treated fairly by the organization, and the stakeholder power is not directly relevant (Hasan 1998).
This normative view considers that stakeholders have intrinsic rights, which should not be violated. Because of their own interest not because of other's interest such as the shareholders, each group of stakeholders receives the attention (Donaldson and Preston, 1955, p. 66). This perspective indicates that stakeholders have rights to be provided with information about the ways that the organization influences them. With this regard, it focuses on accountability and the responsibility of a firm. Gray, Owen, and Adams (1996, p.

38) in their accountability model stated: ''the duty of the manager is to render a non financial account of those operations, for which the manager can be held responsible."

According to them, accountability involves two responsibilities or duties:

- The responsibility to undertake certain actions
- The responsibility to provide an account of those actions

Based on this view, reporting is assumed responsibility driven rather than demand driven (Deegan 2006, p. 270).

2.7 **Corporate citizenship**

The idea that takes a firm as a citizen has a background related to the early 70's. For instance Davis (1973, P. 313) wrote: ''Social responsibility begins, when the law ends. A firm is not socially responsible if only it follows the minimum requirement of law, because, it is just what a good citizen would do."

The concept of corporate citizenship has been understood as a synonym of corporate philanthropy that is now used interchangeably as corporate social responsibility. Andriof and McIntosh (2001), Wood and Logsdon (2002), Wood et al. (2006) emphasize that; businesses are a body of the society and they need to take part in social life, respect universal human rights and contribute, in different ways, to the social well-being, both in the regional and the global arena.

2.8 **Different definitions of CSR**

With respect to different notions of social and business theories, variety of definitions regarding CSR exists that can be listed as:

- In 1960, Keith Davis stated that; "social responsibility refers to businesses' decisions and actions that are taken for reasons, at least in part, beyond the firm's direct economic or technical interest" (Kaeith Davis, 1960, p.70).
- Carroll and Buchholtz (1999, p 268- 295) stated, "The social responsibility of business covers the economic, legal, ethical, and philanthropic expectations that a society requires from organizations at a given point of time."
- In 2001, the European commission defined CSR as Incorporating x environmental and social considerations in the firm's operation and interaction with their stakeholders on a voluntary basis (Eurofound.europa.eu).
- Mc Williams and Siegel (2001, p. 117) stated the definition of CSR as "actions that appear to further some social good, beyond the interest of the firm and that which is required by law."

In this research, the definition illuminated by Mc Williams and Siegel will be used.

The variation in definitions above draws attention to several aspects of CSR, which are divided into four principles such as; responsiveness, accountability, proactive behavior and voluntarism (Yakovleva, 2005, p. 13).

Responsiveness

With respect to legitimacy theory and stakeholder theory, in order to be socially acceptable and legitimate, firms need to react to social concerns and requirement. Responsiveness implies such an interaction between firms and the society that causes that firms react in response to the society's pressure (Frederick et al, 1992, p. 34).

Accountability
Accountability implies rendering of accounts and having the ability to answer to external groups or stakeholders in order to ensure them that the firm is economically, legally, ethically and philanthropically accompanied with the public interests. Accountability in terms of SCR emphasizes that firms need to explain and provide the fairness of their performances to their concerning society by publishing their accounts. (Shearer, 2002, p. 545)

Proactive corporate behavior
This subject outlines the fact that to which extent a firm is prepared to envisage the emergence of new trends regarding the economic, political, social, cultural, and environmental issues in the absence of crisis conditions. It elucidates that firms will be able to anticipate and control the negative consequences of damages by implementing proactive measures (Brummer, 1991, P. 31).

Voluntarism
Voluntarism delineates the level of social responsibility and awareness of firms regarding their actions in a society. This degree of awareness is beyond the scope of obligations that prescribed by the regulatory bodies. CSR policies are actions on a voluntary basis that are implemented to produce social goods, which not only serves the economic benefits of firms but also are not mandatory by law. Consequently, the firm's voluntary actions surpass the least standards set by legislation (Mc Williams and Siegel, 2001, p. 121).

As signaled before, the traditional view of economic theories believes that a firm's core objective is to maximize its profitability by maximizing the firm's value in order to satisfy the investors on their expected returns. Traditional economic assumptions suggest that managers should decide to maximize the wealth of a firm's equity holders (Friedman, 1962). Taking such decisions, managers will maximize the present value of a firm's future cash flows (Copeland, Murrin, & Koller, 1994). Corporate social responsibility (CSR) varies from this principle of business and assumes that firms are regularly interacting with the society that causes a broader impact rather than short term economic privileges only for the investors. Consequently, firms have a duty to the society, which goes well beyond simply maximizing the wealth of the equity holders (Swanson, 1999; Whetten, Rands, & Godfrey, 2001). The narrow economic view causes that the manager to ignore other stakeholders including employees, suppliers, customers, and society, whereas a broader concept such as CSR requires that the interest of the shareholders needs to be set aside in favor of a firm's other stakeholders (Banfield, 1985; Carroll, 1995; Windsor, 2001). Several economic theories such as legitimacy -, Stakeholder -, social contracts, and corporate citizenship theory form the basis principles of CSR (Walden and Schwartz, 1997, p. 130).

2.9 Definition of financial performance

In the financial terminology, different indicators that in general are labeled as the measure for the financial performance, which represent the ability of firms in generating revenues from their everyday operations and also the healthiness of firms (Brealey and Myers, 2003, p. 321). Financial performance of firms is calculated to evaluate their performance in relation to the other firms in the concerning industry where it is operating. These indicators can be divided into different areas (Brealey and Myers, 2003, p. 323). The measure pertaining to financial performance can be classified in two areas, namely investor returns

and accounting returns. Investor returns is from the stockholder's view and is market-based, whereas accounting returns are concerned with the way firms will reply to different managerial policies and is accounting-based (Cochran and Wood, 1984, p. 44-47). This study will use accounting- based measures for the financial performance measurement indicators, which are return on assets (ROA), return on equity (ROE) and return on sales (ROS). Following descriptions of CSR and the financial performance, several supplementary theories are provided in order to depict the relation between CSR and the financial performance. The supplementary theories are derived from the main theories that exerted before, and they will be applied in chapter four by formulating the hypotheses.

2.10 **Slack resources theory / Available funding theory**

Slack resources theory is a variation of stakeholder theory with respect to CSR activities. Mc Guire et al. (1988) stated that because CSR is based on voluntary disclosure, consequently, it is highly related to the managerial discretion. He added that providing a voluntary social and environmental policy is highly depended on the availability of the additional funds. Slack resource theory indicates that a level of financial performance triggers an increase in the slack resources. Consequently, growth in the slack resources augments the firm's opportunities to invest in CSR activities. The slack resources theory also gained another name as the theory of the Available funding (Preston and O'Bannon, 1997, p. 423). The credibility of this theory has been supported by several empirical studies (Mc Guire et al., 1988, p. 856 and 1990, p. 173).The presumptive idea behind this theory is that financial performance is positively associated with CSR activities. Ullmann (1985), Waddock and Graves (1997) stated that high levels of financial performance may necessarily cause the slack resources to involve in corporate social responsibility and responsiveness.

2.11 **Trade-off theory**

According to Vance (1975, p. 21), which was also empirically proved, trade-off theory corroborates ideas that firms with robust social activities relatively have lower stock price in proportion to the market average. CSR activities may succeed at the expense of the firm's capital and the other resources (Aupperle et al, 1985, p. 450). Subsequently, this will worsen the competitiveness abilities of CSR firm, including practical policies such as environmental protection, giving promotion to the plans of the community, the maintenance of plants in locations where they suffer from economic depression and the substantial donations to charities are all good examples of CSR activities (Preston and O'Bannon, 1997, p. 421).

2.12 **Managerial opportunism theory**

The managerial opportunism theory is a variation of agency theory, which considers that managers follow more their own interests rather than their principals' interest. These interests can be met in terms of bonuses, which are narrowly linked to short-term profit regarding the stock price behavior. This negative view concerning the relation between the social and the financial performances will produce a negative impact on the relation between the two as the financial performance is positively assessed by the stakeholders. Preston and O'Bannon (1997, p. 424) indicated that; "when the financial performance is stated strongly, the management have a robust inclination to ''cash in" by reducing the firm's CSR expenses in order to augment their own short-term interests. On the other hand, when financial performance is weak, the management is inclined to increase the firm's CSR costs. Consequently, positive financial performance will result in a lower volume of CSR activities.

2.13 **Good management theory/ social impact theory**

The good management theory is another view regarding CSR activities that derived from the stakeholder theory. Waddock and Graves (1997, p. 306) were of opinion that a positive correlation exists between CSR practices and the good management practices. It is perceptible that when a firm exercises CSR activities, then it creates better ties with the key stakeholders. Consequently, this will result in a more beneficial financial performance. As an example, it is remarkable that a good relation between employees and the employer may increase the morale, encourage the productivity, and produce satisfactions among the employees. In addition, several factors exists that are relevant components for a firm's competitiveness such as customers' perception about the quality and the nature of a firm's products, firm's awareness on the environmental area, as well as the governmental and societal relations. Hence, if the key stakeholders are positive, regarding the financial performance, it may decrease the cost of dialogue between stakeholders and the management, which increases the sales.

Social impact theory contains the notion of meeting the expectation of the different stakeholders' demands, and any separation from the shareholders 'need will create market fears, which in turn will increase the risk premium and eventually this results in higher costs or lower profit. Serving the implicit claims of the major stakeholders, such as customers and employees will increase a company's reputation; consequently, this has a positive impact on a firm's financial performance (Carroll and Shapiro, 1987).

According to Alexander and Bucholtz (1982, p. 82) and Bowman and Haire (1975, p. 53), the stakeholders and shareholders of the firm consider CSR activities as an investment in increasing the reputation of the firm. Consequently, a positive increase in the stakeholders´ view regarding CSR activities may ameliorate the firm's reputation. This increase will create a situation that the costly explicit expenses will be cheaper. The study of Preston and O' Bannon (1997, p. 421) describes this relationship as the theory of social impact, and McGuire et al (1990, p. 173) found empirical evidence for this relationship. Based on these studies, CSR activities will result in financial performance.
These theories are providing a logical background to the existence of CSR and can justify the potential positive or negative relationship between CSR performance and financial performance.
In this chapter, after presenting theoretical background of CSR, additionally several theoretical definition about the reporting and measuring of CSR will be provided.

2.14 **GRI sustainability reporting and indices**

As briefly explained before, this study will use the Global Reporting Initiatives (GRI) guidelines as an indicator for measuring CSR performance. In order to gain stakeholders' trust in organizations, sustainability reporting will be favorable. Sustainability reporting is not mandatory but initiates organizational transparency about economic, environmental, social and governance performance. Nowadays, various firms in different sectors disclose their annual reports in accordance with the GRI guidelines (GRI website).

What are the GRI guidelines?

The GRI Guidelines is a framework for reporting that covers social, environmental, and economic performance of a corporation.
The GRI Guidelines;

- Introduces the principle of reporting with a specific content to help organizations with preparing their sustainability reports; assists organizations in presenting a fair and reasonable picture of their economic, environmental, and social performance;
- Enhances the comparability of the sustainability reports. This implies that the guidelines respects the different practical concerns regarding information disclosure amongst the organizations with extensive and geographically dispersed operations;
- Provides the benchmark and assessment of sustainability performance with respect to codes, standards, and voluntary initiatives;
- Serves as an instrument to facilitate a dialogue with the stakeholder (GRI guidelines, 2002, p. 8).

What is a GRI "Sustainability Report"?

Economic, environmental and social concerns (known as the "triple bottom line") are issued by GRI guidelines under the title of "Sustainability reporting." The guidelines have adopted this structure, because, it relatively reflects the methods that are the most widely accepted approaches in defining the sustainability. Precisely, like all other simplifications of a complex issue, GRI realized that defining this challenge has boundaries. In order to achieve the level of sustainability, GRI requires a harmony in the complex relationships among current issues of CSR in a way that will not jeopardize necessities of next generations. Defining sustainability in terms of three separate dimensions (economic, enviromental, and social) can help to understand the sustainability by focusing on each dimension separately rather than concentrating in an integrated approach. Nonetheless, the "triple bottom line" is perceived as a starting point which is comprehensible to many. It has reached a level of consensus, which opens a reasonable gate to a complicated problem. GRI is committed to continuous improvement regarding the structure and the content of the Guidelines in conformity with evolving the best measures of performance against the goal of the sustainable development (GRI guidelines, 2002, p.9).

Principles of GRI reporting

Transparency

Since transparency enhances the credibility of the reporting, full disclosure of the processes, procedures, and assumptions in preparing the reports is essential to sustainability reporting.

Inclusiveness

The reporting organizations need to engage their stakeholders to help with focusing on the related concerns. It will continually improve the quality of their reports.

Auditability

A variety of financial and non- financial information should be recorded, compiled, analyzed and disclosed in a way that enables internal and/or external auditors to attest the reliability and draw a reasonable assurance from it.

Completeness

All material information for evaluating the environmental, social, and economic performance ought to reflect in the report in a way that is harmony with the declared boundaries, scope, and period.

Relevance

Relevance is the extent of being an influential factor or the degree of importance, which will be assigned to a certain aspect, indicator or piece of information. It represents a basis for the fact that information is significant to be reported.

Sustainability context
The reporting organizations need to extend their performance in a larger context of social, ecological, or other boundaries. Such a context adds a significant meaning to the reported information.
Accuracy
The accuracy principle implies that a degree of exactness and low margin of error should be achieved in the reporting of information. It is essential for users to decide with a high degree of confidence regarding the produced information.
Neutrality
Reports should avoid impartiality in selecting and presenting the information. It should strive toward providing a balanced and unbiased report concerning the performance of the organization.
Comparability
The reporting organizations should maintain consistency in the boundary and scope of their reports. Organizations needs to disclose any changes and re-state their previously reported information.
Clarity
The reporting organizations need to be fully aware of the various necessities and backgrounds of their stakeholder groups. Besides, it should prepare information in a way that is responsive to the different group of users while it is still maintaining a suitable level of details.
Timeliness
Information should be provided on a regular timetable that meets the user's needs. Reports should be in conformity with the nature of the information (GRI guidelines, 2002, p. 23-31).
Indicators in the GRI framework
The guidelines, in addition, specify the base content that should appear in a sustainability report. In this regard, the guidelines include different types of disclosure.
Vision and Strategy
A statement by the CEO of the organization, in which concerns and developments regarding the sustainability reporting, as well as the strategy of the organization will be stated.
Profile
It contains an overview regarding the reporting structure of the organizations, an overview concerning the operations of the organization, and an indication related to the scope of the report.
Governance Structure and Management Systems
This indicates an explanation concerning the organizational structure, policies and management systems with having the stakeholder engagement in all signaled divisions.
GRI Content Index
A table presented by the reporting organization that identifies where the information incorporated in division C of the Guidelines will be found in the organization's report.
Performance Indicators
Measures of the impact on the reporting organization that are divided into integrated, economic, environmental, and social performance indicators.
GRI structures the performance indicators according to a hierarchy of category, aspect, and indicator. These definitions, used by GRI within this hierarchy, are in harmony with international standards, however; they are adapted to GRI framework. Indicators are

arranged in dimensions conforming with the conventional definition of sustainability, which includes economic, environmental, and social dimensions (GRI guidelines, 2002, p. 35-36).

2.15 **Summary**

To depict the role of social responsibilities for companies and their survival, theories such as Agency theory, Stewardship theory, legitimacy theory, Stakeholder theory, and social contracts from different views have been evaluated. Agency theory concerns the relation between shareholders and managers. Besides, from other point of view, it concerns the relation between the stakeholders or the society as a principal and the firms as an agent in general. It indicates that due to the existence of self- interest and information asymmetry between agents, principals, managers tend to maximize their own wealth, and consequently it causes agency costs. In addition, comparing to the agency theory the stewardship theory contains a contrary notion of the management toward the organization and the principals. It perceives that management show pro-organization and collectivistic behavior rather than a self-interest one. It indicates that managers meet their needs in alignment with the organization successfulness. Considering both theories, the outcomes show that implementing CSR policies are beneficial for the organization and the managers.

Social contracts assume that several social contracts exist between the society or the stakeholders and the organizations. In CSR's context, businesses might act in a responsible manner, because of their commercial interest. Legitimacy theory asserts that companies incessantly attempt to ensure their society that they operate within the values and the principles of their societies. They need to be perceived by the outside parties as being legitimate. It indicates that the society expects businesses to spend a portion of their financial substances to preserve the environment, to ensure the health and safety of their consumers, their employees, and their society.
In accordance with legitimacy theory, Stakeholder theory considers an organization as part of a wide social system. This theory evaluates the relation between the stakeholders from two different views, Ethical and Managerial branches. In addition, this theory believes that the power of stakeholders is viewed as several powerful groups that have control over resources, which are required by firms. It assumes that the expectation of stakeholders influences the performance and the disclosure policies of the company.

In following of previous theories, Wood et al., (2006) emphasize that businesses are part of the society and should respect universal human rights and contribute in different ways to the social well-being, both in local and global arena. Although, there are different relatively similar definitions of CSR, this study employs the definition provided by Mc Williams and Siegel (2001, p. 117), who stated it as; *"actions that appear to further some social good, beyond the interest of the firm and that which is required by law."* With this regard, the importance of several aspects of CSR is recalled that are divided into four principles such as responsiveness, accountability, proactive behavior and voluntarism. In pursuing of CSR and financial performance definition, some other supplementary theories such as, slack resources-, Good management-, Trade off-, and Managerial opportunism-, are provided. These theories are mostly derived from the main theoretical backgrounds that have been explained and will be elaborated in chapter four. Finally, Global Rating Initiatives (GRI) for sustainable reporting as a worldwide-accepted indicator for measuring CSR activities and principles are introduced. The GRI Guidelines for sustainable reporting is a framework that covers three dimensions of an organization's performance, namely economic,

environmental, and social performances. In a nutshell, the principles of GRI such as transparency, inclusiveness, auditable, completeness, relevance, sustainability context, accuracy, neutrality, comparability, clarity, timeliness are highlighted. Besides, the GRI indicators in this framework such as vision and strategy, profile, governance structure and management systems, GRI content Index, performance Indicators are outlined.

These theories have a continuous relation with the rest of the research; they help to understand the prior researches better, they will be used for describing and formulating the hypotheses, and they will be used for explaining and justifying the outcomes.

In the next chapter, in a time series, prior researches concerning the use of CRS will be presented. In order to create an alignment and harmony with the current research, their samples, methods, experiences, and results will be commented.

3 Prior researches

3.1 Introduction

In this chapter, firstly, some studies regarding the positive, negative or neutral relationship between corporate social responsibility and the firm's financial performance will be reviewed. To show the chronological development in the relationship between CSR and financial performance, several studies will be arranged in the sequence of time and occurrence. Secondly, the causal relationship between the use of CSR and financial performance will be provided. To support the relationship, this chapter presents theories such as slack resources-, social impact-, good management-, trade-off-, management opportunism- and positive/negative synergy theories to explain and to identify the relationship between the two main variables. Prior researches employed in this study will represent a structural background of the issue and the measurement of CSR and the financial performance. Additionally, these selected prior researches and their results will be commented in paragraphs 3.2 to 3.9. Finally, in this chapter sub-questions 4 to 8 will be answered. This chapter ends with a summary in paragraph 3.10. These studies have been summarized in a table in appendix 1.

3.2 Cochran and Wood (1984)

Cochran and Wood (1984, p. 43) recognized two measurements for CSR studies. One of them is the "reputation" index that has been generated by knowledgeable people who rate firms based on one or more dimensions of the social performance. In addition, this measurement has some advantages that could be qualified as being consistent due to applying the same criteria by the developers. It does not use objective measures, which in essence are subjective. It summarized the ideas of a voter about a firm. Disadvantages of this index are that; the issue is subjective and the sample size is not large enough to establish such an index. Amongst the so-called reputation indices, the most popular one was generated by Moskowitz and it rates firms as outstanding, honorable signaled and worse (Moskowitz, 1972, 1975). This ranking derived from firms' scores and these scores were rested on the following thirteen factors:

- Privilege, power and government
- Human rights
- Business and broad social concerns
- Discipline
- Privacy and morality
- Retention of national strength
- Customer satisfaction
- Aid to education
- Caveat emptor
- Business prosperity
- Quality of life
- Priorities and order
- Distrust of advertising

The content analysis is the second method for measuring the performance of CSR. This analysis measures CSR activities in different types of reporting, especially annual financial

reports. For instance, it may measure only one item such as pollution control that can be measured either qualitatively or quantitatively. Alternatively, it can measure a number of items. The first advantage of this approach is that; the outcomes do not depend on a sertain study and the second one is that by using this method, having larger sample sizes can be possible. Disadvantages of this method are that; the measure of variables is subjective and content analysis is an indication of what firms would report from their performing. However, both content analysis and reputation indices are not an adequate measurement for CSR reporting but no better alternative is so far available. On the other hand, the measurement concerning financial performance can be categorized as investor returns and accounting returns. Investor returns is from the shareholder's perspective and market-based while accounting returns focuses on in which way firms responds to different managerial policies (Cochran and Wood, 1984, p. 44-47).

Cochran and Wood (1984) used the previously signaled Moskowitz ranking for CSR reporting and accounting returns concerning financial performance. Using accounting returns, there were three measures employed: The ratio of operating earnings to assets, the ratio of operating earnings to sales, and the excess market valuation (EV).

The ratio of operating earnings to assets is an indicator for the relative efficiency of assets utilization and the concerning formula is: Ratio of operating earnings to assets = operating earnings before depreciation / total assets
The ratio of operating earnings to sales measures the level of operational efficiency and the concerning formula is: Ratio of operating earnings to sales = operating earnings before depreciation / total sales
Excess market valuation implies the difference between the total firm market value and the book value of assets, normalized by sales (Cochran and Wood, 1984, p. 50). The formula is: EMV= market value of equity + book value of debt – total assets/ sales

The result depicted that honorable qualified firms are superior to best firms, and it raised a question related to the nature of their assets or their use. Consequently, two other variables have been added to explore the influences. First, assets- turnover is described as the sales to assets ratio that measures the effectiveness of the use of assets by firms and the second one is net fixed assets to gross fixed assets ratio that measures the age of assets. The sample included 61 firms in 42 industries, which were examined in two periods (1970-1974 and 1975- 1979). A regression was wielded to analyze whether there is a significant correlation between SCR performance and the financial performance while considering the impact of industry as the control variable of the regression (Cochran and Wood, 1984, p. 51).

An outcome of this study indicates a relationship between the variables "assets age" and "assets- turnover" and the Moskowitz CSR categories. Asset age represents a significant negative correlation with the "worst" CSR firms while the assets turnover shows a weak correlation with the Moskowitz rating. Consequently, the main conclusion is that the assets age is a variable, which is effectively correlated with CSR activities within the industry groups and by excluding these variables, a spurious correlation will appear between CSR and financial performance. A result is that firms with older assets have lower CSR ratings. Apparently, to support these outcomes two explanations are possible. One explanation is, in the past, no rigorous CRS standards existed, which firms could follow when they

constructed their buildings and facilities. The second one is that management of older firms is not open in adopting CSR policies as the younger management would be. The result of this research is in conformity with the result discovered by previous studies, Cochran and Wood (1984, p. 55).

3.3 **Mcguire, Sundgren and Schneeweis (1988)**

Previous studies by Cochran and Wood (1984), Aupperle (1985), and Ullmann (1985) have shown mixed results concerning the relation between CSR and measures of the firm's performance. The latter expressed that those differences exist partly due to the differences among methodologies and measures of financial performance used by various researchers. Mainly two different measurements exist: stock-market-based and accounting-based approaches. Studies with market-based measures have found mixed results regarding the relationship between social responsibility and the financial performance, whereas studies using accounting-based measurement have reported a positive relation between CSR and the financial performance (Mcguire, Sundgren and Schneeweis, 1988, p. 858). Neither market-based nor accounting-based measurement is solely perfect. Consequently, to avoid these problems, the study used a combination of both measurements (Mcguire, Sundgren and Schneeweis, 1988, p. 859). Data on CSR were taken from the Fortune magazine's annual survey of corporate reputations. The data derived from Fortune magazine have been collected since 1982 and covers the largest firms in 20-25 industry groups. The survey had asked approximately 8.000 executives, analysts and outside directors to grade the ten largest firms in the concerning industry on their eight attributes such as:

- Financial soundness
- Long-term investment value
- Use of corporate assets
- Quality of management
- Innovativeness
- Quality of products or services
- Use of corporate talents
- Community and environmental responsibility

Numbers from 0 to 10 were rewarded to a rating where zero regarded as "poor", and ten was marked as "excellent". Chakravarthy (1986) and Wartick (1987) have used this data set for their researches. They preferred this survey of Fortune magazine to other ratings, due to;

a. providing comparable data over an extended period,
b. having comparable numbers of respondents to the other ranking and
c. rating only firms by respondents in an industry, with which they are familiar.

As signaled before, stock-market-based and accounting-based approaches were used to measure the financial performance.

For stock-market-based measures of firm performance and risk were used:

- Risk-adjusted return (Alpha) and total return
- Market systematic risk (Beta) and the standard deviation of total return

Concerning accounting-based performance and risk measures were used such as:

- Returns on assets (ROA)
- Total assets
- Sales growth
- Assets growth
- Operating income growth

- Ratio debt to assets
- Operating leverage
- Standard deviation of operating income

In this study, two sets of rating of CSR were used. An average of ranking used for the period 1983-1985 that included 98 firms and industries for which information could be found in all these years, in order to analyze the relation between CSR and the previous and subsequent firm's financial performance a rating of CSR concerning the year 1983 (Mcguire, Sundgren and Schneeweis, 1988, p. 860-861).
The outcomes showed that an insignificant correlation exists between the market-based measures and CSR. However, the accounting-based measures show either positive or negative significant correlation between the firm performances and CSR. A positive association between the accounting-based measures and CSR strengthens the opinion that CSR activities influence financial performance through their effect on the stakeholders. A negative association implies that the results of a higher adopted CSR rating by some developed firms that have steady earnings such as IBM are consistent with the outcome of previous studies, which suggest that having implicit contracts with stakeholders would yield to lower debt (Mcguire, Sundgren and Schneeweis, 1988, p. 865). The results of this study illustrate that extra risks, for example, of a lawsuit or fines will be imposed to firms due to the lack of incorporating CSR policies, which may reduce firms' strategic options. Consequently, managers who are interested in the impact of CSR on the financial performance will seek ways to reduce the risks instead of attempting to increase the profitability by practicing CSR activities (Mcguire, Sundgren and Schneeweis 1988, p. 869).

3.4 **Waddock and Graves (1997)**

A link between CSR and financial performance is not clear or rather ambiguous. CSR performance is a multidimensional construction, and the reasoning is based on three stages of the behaviors regarding input, process, and output. The behavior regarding input is understood as the investment in pollution, control equipment or other environmental strategies. The behavior regarding process is the treatment of women and minorities, nature of the product and the relationship with the customers. The behavior regarding output is understood as the community's relations and philanthropic programs. These behaviors vary from each other in different industries, characteristics and histories. In addition, other factors, which influence CSR measurement, are managerial decisions and corporate's behavior. Consequently, due to this wide range of diversity in CSR performance, it creates little room for sufficient clarity. Hence, a significant demand exists for multidimensional measurements, which can cover a large sample of industries and companies (Waddock and Graves, 1997. P. 304).
By using a proposal of Ullmann (1985), this study applied eight CSR attributes derived from the Standards and Poors 500 by the firm Kinder, Lydenberg, Domini (KLD). KLD is an independent rating service that considers corporate social performance through a large scale of dimensions related to the stakeholder concerns. In comparison to the ratings used in earlier researches, this improved rating includes all companies in S&P 500 and each company is rated on multiple attributes, which is relevant to CSR. Besides, an independent group of researches uses the same criteria to related companies, and those criteria are applied constantly to a wide range of companies.

As signaled before, five of eight attributes that were used by Waddock and Graves (1997), are directly related to the key stakeholders, which are employee relations, product characteristics, community relations, environment, treatment of women and minorities. In addition, the other three not directly related to the stakeholders included; nuclear power, military contracts, and involvement in South Africa (Waddock and Graves, 1997, p. 308). Each attribute was equally weighted by a ranging from "major concern", "concern", "no concern", which marked by, -2 to "strength" and "major strength" that was marked by +2. Since, previous studies suggested that size, risk, and industry are the most influential factors in analyzing the regression equations; these factors were used as control variables. The indicators that represented control variables are total assets and total sales, long-term debt to the total assets ratio, and the SIC code. SIC code is an abbreviation for Standard Industrial Classification code, which has been developed by the US government. Firm's profitability was measured by using three accounting variables such as:

ROA (return on assets) = (Earnings before interest and tax – tax) / total assets
ROE (return on equity) = (Earnings available for common stockholders) / average equity
ROS (return on sales) = Earnings before interest and tax / total sales

These provide measures to assess corporate financial performance by the investment community (Waddock and Graves, 1997, p. 309).
ROA is an indicator that measures a firm's profitability and explains the efficiency of the management by using assets or investments to generate earnings. ROE is an indicator that measures a firm's profitability that indicates the amount of net income generated by a company from the amount investments by the shareholders. Return on sales (ROS) is the ratio that shows in which way a company is efficiently operating to generate profit from the sales. A regression and a correlation analyses were used to examine the relationship between CSR and financial performance.

A sample of 469 firms in US was observed during a period from 1989 to 1990.
The outcomes of this research imply that CSR and financial performance are positively related and CSR performance depends on financial performance.
As signaled before this outcome supports the slack resources theory, which postulates that firms with strong financial performance have more potential slack resources in use. Consequently, based on this theory, firms have more opportunities to invest in CSR activities. Moreover, the study found evidence that supports good management theory. This theory takes for granted that the financial performance is dependent on CSR performance (Waddock and Graves, 1997, p. 314).
Good management theory assumes that; firms with incorporated CSR policies and practicing CSR activities are associated with the practices of good management theory, which in due course gives rise to better financial performance. Finally, Waddock and Graves concluded that a simultaneous and interactive effect of CSR and financial performance on each other exists. However, the direction of the relationship cannot be detected.

3.5 **Balabanis et al. (1998)**

This study introduced the question whether a positive relation exists between CSR and corporates' financial performance. The aim of the study was to examine whether a relation exists between CSR and financial performance of firms in terms of their contemporaneous, subsequent, or past economic performance (Balabanis et al 1998.p 26). In studying the question, he explains implicit and explicit contracts. Explicit contracts imply a group of stakeholders who directly are related to the firm's activity and have a direct interest (e.g. Shareholders) while implicit contracts are contracts related to those who are indirectly related to a firm's activities such as CSR performance (e.g. unions).

The study takes the Mc Guire et al (1988)'s reasoning into account that if a firm does not meet the requirements of the implicit contracts, thus those claimants will convert their contracts to explicit ones, which could impose, costs to firms. This implies that not being socially responsible in one area (e.g. environmental area) may raise some other issues in other areas (e.g. labor's problem). Consequently, based on this view, several arguments have been formulated to evaluate pros and cons of the positive relationship between sustainability reporting and simultaneous or succeeding economic performance (Balabanis et al, 1998, p. 28). The sample contains 56 UK quoted firms on the London Stock Exchange that covered 20 industries. A UK public-interest research organization "New Consumer Group (NCG)" was used for rating CRS activities, which attempted to avoid the limitation of prior studies such as the use of only one dimension, reliance on single information source, or single data collection method. In order to measure CSR performance, eight indicators were derived from the comprehensive rating system of the NCG, in which they were weighed by varies scales (Balabanis 1998, p. 30):

- CSR disclosure
  The extent to which the company went beyond minimum statutory disclosure requirements and the comments provided on the first version of NCG CSR profiles (Five point scale were produced: -2 = well below average; -1= below average; 0 = average; 1= before average; 2 = well before average)

- Women's position
  The extent to which a company encourages the advancement of women (Four point scale: –1 = below average, 0 = average, 1 = before average, 2 = well before average)

- Ethnic minorities' position
  The extent to which a company encourages the placement and the advancement of ethnic minorities (Three point scale –1 = below average, 0 = average, 1 = before average)

- Philanthropy
  Philanthropy or charitable giving and involvement to community projects (Three point scale: –1 = below average, 0 = average, 1 = above average)

- Environmental action
  Environmental action refers to initiatives the company is undertaking to reduce its environmental impact or improve its environmental protection performance (Three point scale: 0 = none, 1 = some environmental action, 2 = concerted environmental action)

Whether the firm has contributed a donation to the British political parties in a period from 1986 to 1990 (A yes/no scale was used)

Subscription to the Economic league, a "blacklist organization" that sells information to employers about individuals regarded as potential subversive (A yes/no scale was used)

The extent to which the firm's activities have a significant effect on the environment [A four-point scale was used, where:

3= industries with major environmental impact (chemical, oil and mining industries),
2= industries with significant environmental impact (clothing, pesticides, electrical goods, pharmaceuticals, agricultural goods and car manufacturing firms),
1= industries with before average impact (tobacco, fast food, soft drinks and brewing companies), and
0= industries with average impact]

The measurement indicators for financial performance are three accounting-based and two market-based measures (Balabanis, 1998, p. 32):

- Accounting-based measures:
- Return on capital employed (ROCE = Earnings before interest and tax / total assets – Current liabilities), return on equity (ROE = Net income / Shareholder's equity), the ratio of gross profit to sales (GPS = Revenue – Cost of goods sold/ Revenue)
- Stock-market-based: Excess market valuation (EMV = market value of equity + book value of debt – total assets/ sales) and beta which is the systematic risk in capital assets market model (CAPM)

ROCE measures the percentage of profitability and the efficiency of firm's capital investment. ROE is an indicator that measures a firm's profitability that indicates the amount of net income generated by a company from the invested amount by the shareholders. GPS is a ratio that reflects the operational efficiency of the firm. EMV shows the difference between total market value of the firm and the book value of assets, which are normalized by total sales. Beta is the systematic risk, which is defined as the covariance between returns on a risky asset (e.g. a corporation's common stock) and market portfolio, which is divided by the variance of the market portfolio (Copeland and Weston, 1983). The set of CSR performances is related to a period from 1984 to 1994. Based on this period, financial performance was divided into three sub- periods: 1) pre- assessment period (1984- 1987); 2) concurrent period (1988-1989); 3) post- assessment period (1990-1994). The average of financial performance measure was calculated for each period.
The relationship between CSR and financial performance was examined by statistical tests such as T-test-, ANOVA-, Regression equations-, and Correlation analyses. There is evidence that a positive relationship exists between philanthropic indicators and excess market valuation (EMV), as well as the ratio of gross profit to sale for the pre-assessment period.

The study has also shown a significant positive relationship between the ratio of gross profit to sales and CSR disclosure for the concurrent period.
A regression analysis was executed for the post-assessment period. In this regression, financial performance indicators were assumed as dependent variables and CSR indicators were regarded as independent variables. The outcomes indicated that there is a positive relationship among the levels of CSR disclosure and concurrent as well as subsequent financial performance (Balabanis et al, 1998, p. 39). Nevertheless, by conducting correlation analyses, a significant negative relationship was discovered between CSR activities and the financial performance for the post-assessment period.
The outcomes of the research imply a combination of high CSR performance and high disclosure that was found, and it had positive effects on the firms' overall profitability. Furthermore, the study concluded that firms with good and stable financial performance tend to bring CSR activities seriously on the agenda. According to the study, although CSR activities and concurrent financial performance are positively related, these activities are expensive for the firm and in short-term, it may decrease firm's profitability.

3.6 **Ruf et al (2001)**

In order to answer their research question whether firms would gain profit by enhancing corporate social activities, Ruf et al (2001, p. 44) tested the relationship between CSR and financial performance in two consecutive periods, namely concurrent and subsequent periods. Concerning CSR activities, a measurement indicator of CSR performance derived from the Kinder, Lyndenberg, and Domini, Inc. By using the KLD rating system**,** Ruf et al (2001, p. 148) examined the relationship of the sample firms with their environments, employees, consumers, and communities, on eight different areas. These areas are shown below:

- Product liability
- Community relations
- Environmental protection
- Women's and minority issues
- Employee relations
- Nuclear power involvement
- Military contracting
- South African involvement

With respect to corporate financial performance, the indicators such as return on equity (ROE), return on sales (ROS), and growth in sales were used. These indicators were derived from COMPUSTAT (Ruf et al, 2001, p. 149).
In total, 469 firms from the Standard and Poors were analyzed for periods from 1991- 1992 (year 0), 1992- 1993 (year 1), 1993- 1994 (year 2) to 1994- 1995 (year 3). Size of the firm and the concerning industry were applied as control variables. A regression analysis was conducted to test the relationship between CSR and financial performance.
The regression analysis elucidated that there is a significant relationship between control variables and financial performance indicators. Additionally, a positive association was detected between CSR performance and return on equity as well as return on sales in year 3. After all, a positive relationship was noticed between corporate social performance and growth in sales in year 1. The authors suggest that the positive changes in the corporate social performance will be financially beneficial for the firm.

(During this research period, issues such as nuclear, military and South Africa's situation were considered as social issues. Nowadays, they are not social issues anymore).

3.7 **Simpson and Kohers (2002)**

The study of Simpson and Kohers (2002) examined the relationship between the financial performance and CSR reporting in only one industry; the banking sector. This study used the Community Reinvestment Act (CRA) ratings to measure social performance. In fact, banks are examined whether they develop a rating of compliance into four categories, which rates as, "outstanding", "satisfactory", "needs to improve" and "substantial no compliance" (Simpson and Kohers, 2002, p. 99).
The ratings are based on twelve assessment factors:

- Communication with the members of the community to ascertain credit needs
- Extent of involvement by the board of directors in CRA activities
- Marketing efforts to communicate the types of credit offered known in the community
- The extent of loans originated in the community
- The extent of bank participation in government loan programs
- The geographic distribution of credit applications, approvals, and denials
- The record of branch office openings and closings and the extent of the service provided at the offices
- Practices to discourage credit applications
- Discriminatory or other illegal practices
- Participation in community development projects or programs
- The institution's ability to meet community credit needs
- Other relevant factors which could bear upon the extent to which the institution is helping to meet the credit needs of the community

The CRA rating is a measurement indicator for socially responsible banks and covers several critical features of social performance dimensions in this industry. Since the main activity of the commercial banks is lending loan to their customers from other costumers' deposits, consequently, meeting the credit needs of a community is central to the economic and the social health of that community (Simpson and Kohers, 2002, p. 100).
In total 385 of national banks in the U.S. were tested during a period from 1993 to 1994. In this sample, 284 banks were rated as "outstanding", 101 banks were rated as "needs to improve" (Simpson and Kohers, 2002, p. 102).

This study used return on assets (ROA) and loan losses to total loan concerning financial performance measures:

- ROA ratio = (Net income + interest expense)/ Total assets
- LL ratio = Loan losses / Total loan

According to Simpson and Kohers (2002), ROA is a financial measurement indicator that measures the ability of the management in attracting deposit to the bank at a reasonable cost. In case of banks, the largest part of total assets are loans and the main revenue generated from these assets are interests gaining from lending funds to others or investing it in a profitable way. It evaluates that in which way managers are able to lend these funds to generate profit or invest in a profitable investment, which measures the financial success of a firm. Loan losses are the main expense for the banks, and the ratio of loan losses to total

loan is a fundamental measurement indicator of the success of the credit function (Simpson and Kohers, 2002, p. 104).
A t- test was calculated to evaluate the differences concerning two groups, namely outstanding and needs to improve, against their financial performances. Two regression equations were tested in which financial performance measures were taken as dependent variables and CRA rating as independent variables.
A set of control variables were included such as firm's size, risk, assets portfolio, local economic environment, holding company affiliation, level of investment in branch offices, cost of funds, and overhead expenses constant (Simpson and Kohers, 2002, p. 104).
The results indicated that a positive relationship exists between corporate social performance and financial performance. The difference between banks with high and low social performance is significant. The sign of the regression concerning CRA rating variables was negative, which shows that banks with high social performance had lower loan loss and obtain better financial performance. The authors were of opinion that the results of their study were noteworthy, due to their validation of a positive relationship between socially responsible performance and the financial performance, in different operational setting than those that were previously tested.

3.8 **Tsoutsoura (2004)**

In this study, two indicators were used to measure the corporate social responsibility. One of those data is the KLD rating for companies in the Standard and Poors 500 by which the author converted the absolute KLD to scale of 10 as a base score. The second measure used in this study as a proxy was the Domini 400 Social Index (DSI 400). The DSI 400 is the functional equivalent of the Standard and Poors 500 index for socially responsible firms. The study would reward a value of 1 if the firm included in the DSI 400 and 0 if it did not (Tsoutsoura, 2004, p. 12).
In reference to financial performance indicators, the study of Tsoutsoura used accounting-based variables such as return on assets (ROA), return on equity (ROE), and return on sales (ROS). This research covered firms that were included in the S&P 500 index for the years 1996 to 2000.
Previous studies have shown that size, risk and the industry affect the firm's financial and social performance. Consequently, this study used size, risk, and industry as control variables.
The sample contains 422 companies studied for a period from 1996 to 2000. To test the relation between corporate social performance and financial performance, regression equations and correlation analyses have been developed (Tsoutsoura, 2004, p. 12).
The correlation matrixes for key variables such as CSR and financial performance reflect the facts that they are statistically significant and positively related. The regression analyses indicate that a positive relationship exists between the KLD rating and the financial variables such as ROA, ROE and ROS. However, the direction of the relationship and to which extent they would affect each other, was not tested.

3.9 **Nelling and Webb (2008)**

The study of Nelling and Webb (2008) used the KLD Socrates Database to establish the measurement indicator for CSR performance. A wide range of firms regards this database, and this is rated by independent services consequently; this rating is superior to the other alternatives. KLD uses screens to evaluate corporate social performance in terms of strength or (positive value) or concerns (negative value) screens.

These screens consist of items referring to a general subject (Nelling and Webb, 2008, p. 199):

- Community participation
- Diversity
- Employee interest
- Environmental consideration
- Shareholder interest

For the weighting average of the overall index to represent each firm's aggregate levels of CSR, this study used the method developed by Waddock and Graves (1997). In total, a sample of 600 firms within the U.S. have been studied concerning a period from 1993 to 2000. In order to measure financial performance, market- based and accounting- based measures were used as financial indicators, which were derived from Compustat databank. For accounting-based measures, an indicator such as return on assets (ROA) was used and for market-based, common stock return was used as a measurement indicator.

A correlation analysis shows that the weighted average SCR activities is positively correlated with ROA and common stock returns and is negatively correlated with the leverage (long – term debt divided by total assets). The relationship between CSR and size of the firm is not statistically significant. This correlation does not indicate any influence between the two variables, but rather provides evidence that CSR and financial performance are directly related. Since traditional regression could not answer which types of relations exist between CSR and financial performance adequately, the study used the Granger causality model and the Tobit regression to test the relationship. The outcomes of the regression illustrate that the relationship between CSR and lagged financial performance is positive and significant (Nelling and Webb, 2008, p. 202). The author depicted a relation between financial performance and CSR in the context of Granger causality.
The outcomes of the research conform to the previous studies, which indicated that past financial performance is significant in explaining the variability of CSR, and conversely, CSR is significant in variability of financial performance. Finally, the study concluded that no evidence was observed in terms of the relationship between CSR and financial performance.

The most fascinating reasons to use these prior researches in this study are that; prior studies evaluated the relationship between CSR practices and the financial performance in different countries and different times. They have achieved different results regarding this relationship. This research concerns with the European Union as the research area and certain industries such Oil, Gas and Mining within the EU. This study is an attempt to evaluate whether it would receive the same results and thus create a body of knowledge concerning the practices of CSR by Oil, Gas, and Mining companies within the EU.
Most of these prior researches that have been incorporated in this study deal with the United States' situation by using the KLD rating. The present study concerns with firms operating within the EU. It uses another evaluation model other than those provided in some of the prior studies. Appendix 1 represents a summary of the prior research.

3.10 **Summary**

As previously stated, there is no common consensus in academic level regarding the effect of CSR reporting and financial indicators. Several researches were executed regarding the relationship between SCR- and financial performance. The majority of those studies took place in the United States in different times. Some of these studies have detected a weak

relationship between the two variables, and some of them have found a strong relationship between CSR- and financial indicators. Whereas, some of those studies did not find any relationship concerning the effect on the two. Hence, in the prior researches, the findings show a mixture of different outcomes regarding CSR performance and financial performance. As the findings presented in this chapter show, different results derived from their different data, region, views, and methodologies. In major tenets, the methodologies regarding evaluating of CSR performance can be divided into two approaches, namely reputation rating and content analysis. Similarly, the methodology for financial performance can be divided into two different areas, stock-market-based and accounting-based. Appendix 1 delineates a summary of the names of the researchers, title of the studies, timelines, their methodologies, and their findings.

These studies have explained and justified the existence of the relationship and the use of CSR reporting by different main accounting theories such as agency-, legitimacy-, stakeholder-, stewardship, social contracts and corporate citizenship theories. There are also several supplementary theories derived from these before- signaled theories such as Slack resources-, Trade off-, Managerial opportunism-, and Good management theories.

In accordance with prior researches, this research also uses these theories to establish the hypotheses, methodology, and the empirical research. The findings will also be explained by means of these theories.

After providing prior researches, in the next chapter, the development of five hypotheses that used in this research and the concerning theories will be introduced.

4 Hypotheses

4.1 Introduction

As signaled before, to answer the research question based on prior researches and concerning presented theories, two main types of hypotheses are relevant. In addition, they will answer the main question in this study. First group of hypotheses will be formulated regarding the correlations between CSR and financial performance, which explains the direction or the strength of two variables. It will demonstrate whether a positive, neutral, or negative relationship exist between CSR performance and the financial performance, which will be provided in paragraph 4.2. The second types are the hypotheses concerning the statistical association between the variables, by which impact of the independent variables on the dependent variable will be measured. These hypotheses are divided into two categories and are derived from theories such as slack resources, good management, managerial opportunism, and trade- off theories, which have briefly been described in chapter two. These will be explained in paragraph 4.3. A summary will be concluded as the final part of this chapter in paragraph 4.4.

4.2 Hypotheses regarding the correlation between CSR- and financial performance

Negative relationship

As claimed before by Waddock and Graves (1997, P. 305), a negative relationship exists between CSR and financial performance that accompanies with the neoclassical view which argues that positive social performance will impose costs to the firm. Consequently, it causes a decrease in the profit and the shareholders' wealth. According to the trade-off theory if costs are arisen from incorporating CSR policies, then firms will confront competitive disadvantage. With this regard, they may not invest in CSR activities.

Similarly, Preston and O' Bannon (1997, p. 423) suggested managerial opportunism theory as an explanation for a negative relationship between CSR and financial performance. In this context, they argue when a firm has a strong financial performance managers have the tendency to diminish costs of social performance in order to increase short-term profitability and their interests which is linked to this short-term profitability. This view is derived from the agency theory that employs the same view about the interest conflict between the agent (manager) and the principal (shareholder).

With respect to the signaled theoretical framework, the following hypothesis, is formulated:

H_1

A negative relationship exists between CSR performance and the financial performance of a firm.

Neutral relationship

According to UIImann (1985, p. 550), there is no relationship between social- and financial performance because several intervening factors exist between these variables, except by coincidence. Waddock and Garves (1997) argue that the general situation between firms and society is so complicated that a simple and direct relation cannot exist (Simpson and Kohers 2002, P. 101). Based on supply and demand theory that assumes firms should maximize the stakeholders' wealth, Mc Williams and Siegel (2001) argue that a neutral or nonexistent relationship exists between CSR and the financial performance (Simpson and Kohers, 2002, p 101).

Based on the above assumption, the next hypothesis is formulated:

H_2

A neutral relationship exists between CSR performance and the financial performance of a firm.

Positive relationship

Although no common agreement exists amongst studies concerning a positive relation between CSR and financial performance, several authors argue as the proponent of a positive relationship between the financial performance and CSR performance. In fact, firms with a good reputation in terms of employees' satisfaction and good work place condition would attract employee's high qualities and this will increase the productivity of the firm at relatively low costs (Moskowitz, 1972, p. 72). A positive correlation was found between the indicators of good management practices that was provided by Fortune magazine and social performance of the firm. The conclusion indicates that high- level CSR activities are an indication for superior management skill, and this will result in reducing the explicit costs (Alexander and Buchholz, 1992, p. 482). In addition, the stakeholder perspective introduces implicit costs (e.g. environmental and quality) and explicit costs (e.g. payment to bondholders) related to the stakeholders.

Firms that tend to lower their implicit costs by not being socially responsible will consequently be incurred explicit costs in the future, which may create a competitive disadvantage (Waddock and Craves, 1997, p. 306). In social impact theory with a similar view, Preston and O'Bannon (1997, p. 421) explain that meeting the needs of various stakeholders will create a positive impact on financial performance. Practicing CSR activities by firms will improve firms' reputation. Consequently, it improves the relation with the external parties such as government and bankers, which will increases the possibility of attracting employees with good quality (Balabanis et al, 1998, p. 28). Founded on these grounds, a positive relationship should exist between CSR- and financial performance.

Ruf et al (2001, p. 144) explains that a positive relationship between CSR activities and financial performance is based on two views. The first view is the transaction cost theory, which implies that ongoing relationship between stakeholders and the firm increases the contractual costs. In order to avoid higher costs from formalized contractual compliance mechanism, firms tend to meet the various stakeholders' demands. As a result, the study concludes that investing in CSR activities will reduce the cost of transactions, which ultimately leads to an elevated financial performance.

The second view is the resource-based theory that indicates that firms perform a strategic investment by satisfying the need of stakeholders. In this regard, firms can take advantage by disclosing further than the minimum obligations to gratify their stakeholders (Ruff et al, 2001, p. 144). Consequently, an increase in CSR activities leads to an increase in revenue, and this can create higher financial performance than before.

Based on these assumptions, the third hypothesis is formulated as follow:

H_3

A positive relationship exists between CSR performance and the financial performance of a firm.

4.3 Statistical association between CSR and financial performance

One of the issues beside the direction of CSR and financial performance is the statistical association between CSR and financial performance. By the direction, it implies whether a positive or negative relation exists between CSR and the financial performance. By the statistical association, the question is: does CSR associate with the financial performance and

vice versa? Combining these two dimensions, will best describe and explain the possible relation and direction of CSR and the firm's financial performance (Preston and O'Bannon, 1997, p. 421).

Good management theory/ social impact theory

Good management theory is a supplementary theory for stakeholder theory. It proposes that a positive correlation exists between good management practices and CSR activities (Waddock and Graves, 1997, p. 306). It is noticeable that when firms become involved in CSR activities, then they create better ties with their key stakeholders. Consequently, this will result in a more lucrative financial performance. As an example, it is remarkable that a good relation between employees and the employer may increase the morale, encourage the productivity, and produce satisfactions among the employees. In addition, several factors exists that are relevant components for firms' competitiveness such as customers' perception regarding the quality and the nature of firms' products, firms' awareness on the environmental area and their governmental and societal relations. Hence, if the key stakeholders' perceptions are positive regarding financial performance, it may decrease the cost of stakeholder - management's dialogue and increase sales.

Social impact theory indicates that a failure in meeting the expectation of the different stakeholders other than the shareholders will create market fears, which in turn will increase the risk premium and eventually this results in higher costs or lower profit. Serving the implicit claims of the major stakeholders, such as customers and employees will increase a company's reputation, which consequently has a positive impact on a firm's financial performance (Carroll and Shapiro, 1987).

According to Alexander and Bucholtz (1982, p. 82), as well as Bowman and Haire (1975, p. 53), the stakeholders and shareholders of the firm consider CSR activities as an investment in increasing the reputation of the firm. Consequently, a positive increase in the stakeholders´ view regarding CSR activities may ameliorate the firm's reputation. For instance, if a firm failed to cover the official requirements concerning the environmental protection policies, government agencies would charge the firm with imposing rigorous regulations on the firm's activities. These regulations create explicit contracts to force the firm to behave in a socially responsible way (McGuire et al, 1988, p. 856).

The study of Preston and O'Bannon (1997, p. 421) describes this relationship as the theory of social impact and McGuire et al (1990, p. 173) found empirical evidence for this relationship. The conclusion that can be derived based on these explanations is that CSR activities is associated with the financial performance.

According to good management theory, a positive relationship exists between good management practices and CSR activities. Involving more in CSR activities will increase the relation between firms and their key stakeholders that can create an improvement in financial performance.

Consequently, the second types of hypotheses concerning the relation are derived as follows:

H_4

Corporate social responsibility reporting is associated with the financial performance.

Slack resources theory / available funding theory

Since CSR is based on voluntary disclosure, it is highly related to the managerial discretion. Consequently, whether or not providing a voluntary disclosure regarding social and environmental issues depends on the availability of the excess funds (Mc Guire et al. 1988).

This theory assumes that financial performance is positively associated with CSR. It implies that high levels of financial performance may necessarily cause the slack resources to involve in corporate social responsibility and responsiveness (Ullmann 1985; Waddock and Graves 1997).

Firms that potentially tend to be a good citizen are examples of the funding theory, but their actual behavior depends on the availability of resources. It implies that being profitable in one period may subsequently increase engaging in social activities and indicates that CSR and financial performance are positively associated, which is called the lead-lagging effect (Mcguire 1988). The lead lagging in economics describes a situation in which a correlation exists between the leading variable and the value of the other. When slack resources are not available, managerial attention will be focused on short-term financial goals, rather than on projects with only a long-term pay off. It has been shown that slack resources are positively related to improvement of CSR (Waddock and Graves, 1997; McGuire et al., 1988).

The slack resources theory is defined as the theory of available funding (Preston and O' Bannon, 1997, p. 423). The empirical study of McGuire et al (1988, p. 856 and 1990, p. 173) supports this theory.

The slack resource theory implies that a level of financial performance causes an increase in the slack resources. An increase in the slack resources expands the firm's opportunities in providing investment in CSR activities.

Managerial opportunism theory

The managerial opportunism theory, a variation of agency theory considers that managers are pursuing their private interests in term of compensation that is closely linked to short-term profit and stock price behavior. This negative view concerning the relation between social and financial performances will produce a negative impact on the relation between the two as financial performance is positively assessed by the stakeholders. Preston and O'Bannon (1997, p. 424) indicated that when financial performance is stated strongly, the management have a robust inclination to ''cash in" by reducing the firm's CSR expenses in order to augment their own short-term interests. In contrast, when financial performance shows weak signals, the management of the firm, in order to distract stakeholder's attention, tends to balance it by increasing the expenses of CSR activities (Preston and O'Bannon, 1997, p. 424). Consequently, a positive financial performance will lead to a less CSR activities.

Trade-off theory

This theory supports the classic view of Friedman that was encouraged by the early finding of Vance (1975), which points out that firms with displaying strong social activities have lower stock price relative to the market average. Aupperle et al (1985, p. 450) explained that CSR practices might create a reduction in the capital structure and other resources of CSR firm. Comparing to Non-CSR firms, these activities will impair the competitiveness of CSR firm. McGuire et al (1988) named several examples pertinent to these activities such as incorporating environmental protection policies, promoting the plans of community, maintaining the plants in economically depressed locations, and providing extensive contributions to charities (McGuire et al, 1988, p. 855).

The study of Vance (1975, p. 21) empirically supported the focal point of trade-off theory. As signaled before, the results of the study confirmed the fact that firms with robust social and environmental practices have fairly lower stock price than the average stock price of the market. For that reason, involving more and more in CSR practices will result in a weak

financial performance (Preston and O'Bannon, 1997, p. 421). This will create a competitive disadvantage in CSR firms.
Accordingly, next hypothesis is formed based on above signaled theories:
H_5
Corporate social responsibility reporting is not necessarily associated with the financial performance.

4.4 Summary

In this chapter, two main types of relationships are evaluated between CSR and the financial performances, namely the sign of relationship and the statistical association between CSR and the financial performance. First type concerns with the direction and strength of the relationship between the financial performance and CSR performance. This is assuming whether a negative, neutral, or positive relationship would exist between CSR- and financial performance. With this regard, three hypotheses are developed based on the sign of relationships. According to the trade-off theory and managerial opportunism theory, a negative relation in short- term arises, of which managers will not undergo losing their own interests. Consequently, a favorable result concerning CSR and the financial performance for the wealth of shareholders will be costly. According to Simpson and Kohers (2002, P. 101) a neutral relation exists, because general situation between firms and society is a complex, consequently a clear and direct relation cannot exist. With regard to transaction theory, a positive relationship between CSR activities and the financial performance exists because an ongoing relationship between stakeholders and firm increases the contractual costs. To avoid higher costs from contractual mechanism, firms tend to meet the various stakeholders' demands. Consequently, investing in CSR activities will cause a reduction in costs of transactions, and it will create higher financial performance than before the investment. In addition, the resource-based theory implies that firms will strategically satisfy the need of stakeholders by investing in CSR programs. Consequently, an increase in CSR activities will increase revenue, and this can create higher financial performance than before. Based on these theories and explanations three hypotheses have been formulated that are seeking the answer whether a negative, neutral or positive relation exist between CSR and financial performance.
As signaled earlier, based on the relation between CSR and the financial performance, this research has formulated two other hypotheses by means of theories such as Good management-, Slack resource-, Trade- off-, and Managerial opportunism theories, which will be tested to find an answer regarding the statistical association between the two variables. Good management theory describes the assumption that a positive correlation exists between good management practices and CSR activities. Slack resource theory contains the idea that high levels of the financial performance may necessarily provide the slack resources to engage in CSR and responsiveness. Trade-off theory believes that any investment in CSR activities may trigger a reduction in the capital and other resources in CSR firms. This will create a competitive disadvantage in CSR firms. Managerial opportunism implies that the management shows opportunistic behavior, and it strives toward their interest. Hence, when there is a robust financial performance, managers have the inclination to downsize CSR practices in their firm.

In the next chapter, the research design will be explained.

5 Research design

5.1 Introduction

The theoretical background of this study was commented in chapter 2. Besides, prior researches related to the topic were stated, and hypotheses were developed in chapter 3 and 4 respectively. Prior to the test of the signaled hypotheses in chapter 6, the research design, approach and the methodology of the analysis will be provided. The main equations model, definitions, as well as indicators for both dependent and independent variables, will be explained. This chapter will answer the sub-questions 9 and 10, which were listed in chapter 1. Furthermore, research approach will be described in paragraph 5.2. Paragraph 5.3 explains the research methodology and CSR performance measurement indicators. Paragraph 5.4 will describe financial indicators. The relationship between CSR performance and financial performance will be explained in paragraph 5.5. The sample firms and control variables will be presented in the paragraphs 5.6 and 5.7 respectively. At the end, a summary will be presented in paragraph 5.8.

5.2 Research approach

In order to test the reality, empirical researches base their findings on direct or indirect observations. Studies in the accounting field consider with settling problems, testing relationships, and constructing a body of knowledge.
Two accepted research approaches are recognized as quantitative research and qualitative research.

Quantitative and qualitative research

Quantitative research is more “hard” science and objective than quantitative one. Quantitative research measures the strength of an association. Involving in the use of numbers is one of the basic aspects of quantitative data collection to evaluate them. This information can then be assessed applying statistical analyses, which proposes researchers the opportunity to delve into data and try to realize greater meaning.
Qualitative research is more “soft” science and subjective. Quantitative studies deal with counts, and calculating of numbers, while qualitative research is dealing with the meaning, the texts, the descriptions, the signs, the aspects, and illumination of elements. It is pertinent to harvesting of narrative data.

(Smith, 2003) indicated that both methods should equally be acceptable as long as the most suitable method is chosen. Qualitative data collection allows researchers to interpret the collected information, usually without having the benefit of a statistical support. If the researcher is well trained in interpreting comments and activities, this model of research can present considerable information. A lack of scientific collection approach causes this method not to be able to have the same level of relevancy as quantitative studies. Time consuming and being expensive are other disadvantages of qualitative research. Besides, due to the lack of strong controls in the research design, the observation of larger sample is more difficult. Because the aim of conducting such a research is to determine the relationship between one element (an independent variable) and another element (a dependent or outcome variable) in a sample, in this study, beside the qualitative data, the quantitative research is applicable. Because the data is more “rich”, time consuming and less able to be generalized thus solely qualitative research will not be performed.

Since the samples in related research that used to test the hypotheses are considered quite small, the intention of this research is to use a sizably larger dataset. To be able to test the hypotheses, the use of quantitative research is more efficient. However, within the quantitative research, different types of researches exist. Verschuren and Doorewaard (2007) explained the survey and the experiment.
Surveys involve with longitudinal Cross-sectional researches. They use methods such as interviews or questionnaires to gather information from small samples of the population. This creates a basis to estimate different features and characteristics of a larger population of interest.
Experiments are used to establish a cause and an effect. This model of research is characterized by random assignment of subjects to one or two groups.
Based on the descriptions of the different sorts of quantitative researches that are provided by Verschuren and Doorewaard (2007), it is obvious that this research is not a survey.
Not any questionnaires or interview for data collection will be used. This model of research is not only time- consuming; it does not fit in this research. The use of CSR policies in annual reports cannot be measured by a survey.

Since this research is evaluating whether the introduction and the adoption of CSR policies might have an effect on the financial performance, this research is more a cause-and- effect relationship, an experiment, however, according to Verschuren and Doorewaard (2007) several various of experiments exist, such as a laboratory experiment, quasi- experiment, and simulation.
Because among those before signaled experiments, the quasi- experiment shares nearly every aspects of experimental models except that they do not engage in randomized assignment of subjects to experimental conditions, this variant in the research design will be used. Besides, the quasi- experiment deals with existing groups and data. However, because information regarding CSR is more textual and graphical rather than numerical, signaling this is of immense importance, consequently evaluating CSR itself will be easier by using the rating systems derived from the GRI model.

5.3 **Research methodology**

Methodology of measuring CSR

Previous studies in this branch of research have shown two main accepted criteria to measure CSR, content analysis concerning annual reports and other documents and experts' evaluation or so-called reputation indices. Both measures have advantages and disadvantages.
In the reputation ranking indices method, knowledgeable observers rate firms founded on various aspects of social issues. The validity of independent experts or reputation ratings is highly dependent on the correctness of the information which is available to them, and the expertise of the assessors. On the other hand, it has some advantages too; for example, the first advantage is that applying the same criteria and standards to each firm by one evaluator indicates a favorable consistency in this method. Secondly, it applies a severe objective measures to a dimension that might intrinsically be a subjective issue. Thirdly, it can abridge the notions of a key constituency of various firms. The last two arguments could be an influential factor in determining the relationship between CSR and financial performance (Cochran and Wood, 1984, p. 43).

Determining how CSR- and financial performance can be related to each other, is complicated, due to the lack of an appropriate measurement methodology. In many studies, different rating models such as Moskowiz, fortune rankings, Kinder Lydenberg Domini (KLD) and New Consumer Group (NCG) by researchers in this area have been used. As signaled before, in other cases, researchers used a content analysis by evaluating the official corporate disclosures such as annual reports and CSR reports. Despite the popularity of these sources, no evidence exist to determine empirically whether the social performance data revealed by the companies are under- reported or over- reported (Tsoutsoura, 2004, p9-11). Signaling this fact is of paramount importance that, despite the relative insufficiency and the inadequacy in rating models, many researchers such as Cochran and Wood (1984), Waddock and Graves (1997), Balabanis (1998), and Tsoutsoura (2004) employed the same model but different rating agencies.

The content analysis is a string of procedures for analyzing the content of textual documents or a process concerning analysis of transcribed presentations. These procedures contain words or other units of the text that function as codes. These codes are considered to reduce the texts of a certain scheme of interest into more well- structured and concise units of data so that some inferences can be taken regarding the texts or their sources. Krippendorff (1980, p.18) stated that content analysis is a method of analyzing information, which is based on data reduction. All unites of the text, such as words, phrases and sentences with a similar subject, will be divided into the same groups.

Evaluating of the textual data by using the content analysis renders a number of advantages (Wolfe, 1991, p. 282). First advantage is that none of the issuer and the receiver of the analyzed text can manipulate the results because they are not aware that the text is being analyzed. Second advantage of this method is that a content analysis uses both qualitative and quantitative data in the text. Hence, this will contribute a substantial credit to the convergence of the theoretical and the empirical views. The last advantage is that a content analysis focuses rather on observing, understanding, and describing of the organizational phenomena than only using numerical information (Daft and Wiginton, 1979, p. 182). This will enhance the reliability and validity of the data.

Cochran and Wood (1984, p. 44) argued that some disadvantages could be recognized for the method of the content analysis. The only information that can be measured is the assertion of firms regarding their performance, and not the actual performance of the firm. In addition, it is a subjective issue for the researcher to decide how the indicator will be coded. According to the study of Beattie et al (2004, p. 217), the coding process has to be reliable and valid. Although, none of these methods is entirely adequate, this research conducts a content analysis that can be relatively a lucrative idea in this field for European studies. The outcomes of this research can support the results drawn by other previous researches in other areas, which can create a benefit to the EU' level.

Validity of the Content analysis

In order to evaluate the transparency of the CRS reporting that published by the sample firms in this study, a content analysis and a coding system will be used. In this chapter, the methodology, the advantages and the disadvantages of this model of analysis have been explained. However, in this section, some notable explanations concerning the content analysis will be highlighted.

According to Beattie et al (2004, p. 216), content analysis involves classifying text units into categories. Using this method, the researcher analyzes textual information that is based on data reduction. Sentences, phrases, words or other text units with similar themes are divided into the same categories. In order to draw a valid conclusion from the analysis, the procedure should be reliable, which implies that different researches can code the texts in the same way, and it should be valid. This implies that the variables show what the researcher intended to present. Coding system in content analysis permits researchers to quantify the qualitative data that allow the researcher to use statistical analysis. Consequently, the quantitative data requires that the units of coding be scored at the same way.

According to Krippendorff (1980, p. 130) the following three sorts of reliability can be approached in these types of research. *Stability* implies that either the same coder or the other constantly remains coding the same context over time, and it will still show the same results. *Reproducibility* or" *inter-coder reliability",* which implies that, different coders produce the same results while coding the same content. *Accuracy* or known as the degree of classification of the text, which corresponds to the standards and norms.

The scoring models will be biased or receive some impartiality while assessing them, and this study cannot be an exception. To restrict the impartiality and enhance the reliability, and to proceed the before- signaled procedures, the following was conducted in this research. The present research randomly selected and sent a smaller sample of the evaluated companies, namely ten annual or/ and CSR reports, along with the MEZ evaluating model to three other researchers. These researchers allocated scores to the sample again by following the same procedure and MEZ evaluation model. The acquired results from these three researchers were compared to the previous outcome, which were reasonably similar. The conducted re-evaluation process supports and enhances the reliability of the obtained data from the scoring model in this research. The random sample that contains 10 companies is as follows: OMV AG, Total SA, BG Group PLC, MOL Hungarian Oil And Gas PLC, Royal Dutch Shell, Statoil ASA, Imerys, Anglo American PLC, Xstrata PLC, and Boliden AB.

The relation between CSR disclosure and performance

The issues of corporate social responsibility and their related aspects have been subjected to various lively discussions in the academic literature. Nevertheless, no unanimous consensus has been reached concerning the direction and strength of the relationship between CSR activities and financial performance. Since corporate social responsibility has a multidimensional construction due to the diversity in managerial behaviors, characteristics of the related industry, as well as histories and lack of common theoretical frameworks, many researchers have faced difficulties in measuring the relationship between CSR and financial performance (Waddock and Graves, 1997, p. 304) and (Ruf et al, 2001, p.144). Studies of Kitora, Okuda (2007, p. 17) and Gelb, Strawser (2001, p. 2) supported the idea that a positive relationship exists between the extent of the disclosure and CSR performance. Consequently, firms with a better CSR performance will voluntarily disclose more information than Non- SCR firms. Furthermore, a research undertook by Bowen and Haire (1975, p. 51) shows that a positive association exists between firms' disclosure on the annual reports and the Moskowitz index.

Numerous papers identified different types of social responsibility concerning disclosure within annual reports. In these papers, researchers explain that accounts in relation with the managers bring legitimacy to their organization as part of their portfolio strategy. Deegan, Rankin and Voght (2000, p. 127) apply the legitimacy theory to indicate in which way social

disclosures are added to the annual reports of the companies, which are to be found in an industry that had considerable social events or disasters. The study provides results that are in conformity with legitimacy theory. A legitimacy gap may appear when CSR performance does not meet the stakeholders' expectation. If the firm confronts a legitimacy gap, it can apply several strategies to fill this gap (Lindblom, 1993, p. 20).

As explained before, from a stakeholder view, managers employ CSR disclosures to regulate the relationship with the stakeholders. Roberts (1992, p. 602) found that the amount of stakeholder power and their related demands for information can provide some explanation about the degrees and the types of corporate social disclosure. Pedwell, Neu, and Warsame (1998, p. 267) second the notion that some stakeholder groups will require more sustainability disclosure than the others. The authors assessed the annual reports of a number of Canadian listed companies for a period from 1982 to 1991. They found a correlation between the increase and/or decrease in environmental disclosure and certain stakeholder groups with their concerns about some environmental issues. The authors concluded that firms could influence the level of their external CSR requirements by disclosing CSR information. Consequently, more voluntarily disclosure can potentially result in a better relationship with the different stakeholders. According to Tsoutsoura (2004, p. 8) one hundred twenty- two published studies from 1971 to 2001 have empirically examined the relation between CSR and financial performance, whereas a majority of these studies was accomplished in the American situation. Nowadays in Europe, an increasing growth exists in CSR activities. Despite this growth in Europe, a gap still exists in this field, which needs various studies to be conducted in this regard. This study is an attempt to fill the signaled gap in the academic literature. The emphasis of this research is on CSR performance of Oil, Gas and Mining industries within the European Union.

This research will apply transparency of CSR reporting as a proxy to measure the extent of CSR reporting. A content analysis of annual reports and/ or separate CSR reports will be conducted to measure the transparency.

GRI reporting

As extensively explained in chapter 2, Global Reporting Initiatives (GRI) guidelines are instruments for sustainability reporting, which instructs a greater organizational transparency regarding economic, environmental, social, and governance performance to increase and improve the reliability between stakeholders and organizations. Currently, various firms in different branches disclose their annual reports in accordance with the GRI guidelines (GRI website).

Various features of CSR such as economic, environmental, and social performance by GRI guidelines are labeled as "Sustainability reporting". In defining sustainability, this model of reporting employs approaches that are accepted around the world, and these guidelines are aware of having limitations regarding the definition of such a complicated issue. In order to preserve future needs from the potential risks by applying the complex relationships of current CSR issues, GRI reporting harmonizes these relationships so that the sustainability can be achieved. The advantages of applying sustainability reporting are that; firms can ensure their stakeholders in fulfilling their responsibilities in different fields, and open dialogue between firms and their stakeholders. To define the term sustainability, other than the integrated character, the economic, environmental, and social aspects of sustainability need to be separately evaluated. Nevertheless, the sustainability reporting or known as

“triple bottom line’’ is a starting point which is understandable to many. The stakeholders and firms appreciate it as a plausible gate to a complicated problem. GRI obliged itself with improving the structure and the content of the Guidelines in accordance with the newest agreements between the stakeholders and firms. It chooses the best methods to measure CSR performance against the goal of sustainable development. Sustainability reports can be published either separately or in combination with the annual financial report (GRI guidelines, 2002, p. 9).

CSR measurement indicators

Since the use of GRI reporting model has increasingly been growing among firms in Europe, this study found that it could be the most appropriate, comprehensive and inclusive method for the purpose of research. Consequently, to facilitate the measures of CSR performance in the firms’ annual reports, this study will exert GRI principles and/ or similar derivation international or national level. To evaluate the transparency level of the firms, a research conducted by the Dutch Association of Investors for Sustainable Development (DAISD) for Dutch firms will assist this study. The DAISD has conducted the research for a national- level purpose; however, it can be applied to an international level, as well. The criteria, standards, and indicators that in the research by DAISD were used were in accordance with GRI and derived from GRI guidelines. Hence, to measure the level of firms’ transparency, this study applies the criteria, indicators and the scoring model of DAISD, which were applied in MEZ study. Besides, another study exists by The Dutch Ministry of Economic Affairs that evaluates the transparency of the firms by providing weights to different GRI items applied by firms in their sustainability reports, which will be considered in this study as a transparency-measuring model, which is derived from DAISD’ model, appendix B, in the CD-ROM.

Evaluating Transparency (MEZ study)

As the societies are growing and this inevitably causes a rise in businesses, the societies increasingly require responsible behavior from businesses and being held accountable for their behavior. In order to know economic, environmental, and social impacts of the activities by organizations regarding their products or services, being accountable meets the wishes of the society, including the investors. Consequently, well-informed investors will be able to make responsible choices, as well. Accountability sets requirements such as openness or transparency and readiness or being prepared to have dialogue with the society. Being transparent, a firm will receive credit from the stakeholder and can strengthen the reputation. The stakeholders expect clear and relevant information from the firms. This should be more extensively prepared as the firm has a larger social responsibility or causes larger societal impacts. On the other hand, the firm can realize that advantages will arise from the dialogue with the concerning stakeholders by receiving criticisms and suggestions from them. Firm can initially focus on the primary group of the beneficiaries that particularly are their labors, shareholders, and customers. Finally, transparency can be expressed by means of firm’s reporting system (DAISD/ VBDO, 2005. p. 3).

As signaled before, this research will use transparency as a proxy to evaluate the content of CSR reporting. Since there is an absence of a common model for evaluating the transparency in Europe, this research will use a certain model for evaluating the transparency, which was developed by PricewaterhouseCoopers that was ordered by Dutch Ministry of Economic Affairs (MEZ) in 2006. Although, this model has been developed on a national level, it can be applied to the European level, as well.

In the study of MEZ (2006) accomplished by PricewaterhouseCoopers, a sample containing 174 Dutch firms were observed. In total 98 firms were listed at the Dutch Stock Exchange. There were also 76 large-sized companies, which were not listed at the Dutch Stock Exchange. Their size was measured by their turnover. In the study of MEZ, they used publicly available information in the annual reports and/ or separated CSR reports. The research exerted The Annual Reporting Guideline 400 and the Guideline for "Sustainable Reporting" to construct a basis for preparing a list that called the evaluation model. With respect to CSR performance, four main topics were assessed such as economic -, environmental -, employees'- and human Rights issues. The extent of influence on those signaled topics were measured in a direct or an indirect ways: The direct impacts through the chain are defined by several subjects such as the amount of the electricity used by the offices, corruption preventing, and the involvement of the employees. The indirect impact via the chain is defined as the results of the chain that is imposed on the suppliers and clients.
A firm can establish several safeguards and ask the suppliers to incorporate certain labor rights and ask for an active policy concerning the environment protection. Since it represents an indication of a firm's dialogue with the stakeholders, this signaled topic is intriguing. This research chose the benchmark of 2006 is because the benchmark of 2006 was the only benchmark available and still can be applicable for this study. Although, this benchmark belongs to year 2006, the main issues of CSR that are beneficial for testing the sustainability reporting are perfectly covered. These issues, which gain score, can be divided into five main areas such as; quality of the firm's profile, design of the report, the firms' results, targets, and verification by external parties (MEZ, 2006, P. 18).

As highlighted in the previous chapters, GRI guidelines divides the content of GRI-based reports into five main categories i.e., vision and strategy, organization profile, governance structure and management system, GRI content index and performance indicators. The conducted research by MEZ used dimensions, categories, and aspects of GRI guidelines, which are suitable for this study. GRI constructs the performance indicator in accordance with a hierarchy of category, aspect, and index. The definitions that applied by GRI within this hierarchy are in conformity with the international standards, however, adapted to the GRI framework. Indicators are classified in three dimensions. These dimensions are the economic, environmental, and social aspects of CSR, which cover the conventional definition of sustainability reporting (GRI guidelines, 2002). Table 1 appendix A, in the CD-ROM.
Additionally, for analyzing the extent of transparency in CSR reporting, this study will apply a checklist that was developed by the before- signaled research conducted in the Netherlands by PricewaterhouseCoopers for Dutch Ministry of Economic Affairs (MEZ) in 2006. The signaled research analyzed the extent of transparency in CSR reporting for the biggest firms listed in Dutch stock exchange.
For the scoring purpose, the MEZ study allocates different weights per individual indicator. The scoring model rewarded the reports by granting maximal two points per individual indicator.
The maximum of total score per firm is 200 points, which stands for 100 percent. Since some core indicators are not applicable to all firms, some certain firms would deviate from the maximum score.
In the study of MEZ, the sample firms were evaluated at seven areas with respect to the transparency of their CSR reporting (table 2 appendix A, in the CD-ROM). To measure the level of transparency in each area, a checklist has been formulated with 58 items that cover

all aspects of these areas. Furthermore, to from a weighting system, different points are assigned to each item. The utmost percentage that could be allocated to the firms was 100 percent per firm, which presents the maximum level of transparency in CSR reporting. The scoring model has been added to the checklist. Appendix C, in the CD-ROM, contains all the items in detail.

The average score was 49, 1 percent for the listed companies, whereas it was only 45 percent for non-listed firms, (MEZ, 2006, p. 6). ABN AMRO had the highest level of transparency concerning CSR reporting with a score of 89 percent, which was followed by Rabobank, Philips, Nutreco, and Numico. The study has also evaluated the extent of transparency at the industry level. Banking sector received 73.8 percent for the CSR reporting. It followed by Energy and Utility-, Food and beverage-, Insurance- and IT industries (MEZ, 2006, p. 62).

CSR indicators

In alignment with the conducted research by PricewaterhouseCoopers for MEZ, this research will explain and apply the same developed GRI indicators for measuring the transparency of CSR reporting, which will be used as a proxy for the extend of CSR in the sample firms. These indicators are as below:

- *Profile of the firm*
  The firms' published information about the turnover, profit/loss, employees, geographic scope, brands, activities, products, organizational structure, countries of operations, ownership ratios, and the corporate governance.

- *Social impact of the firm's operation*
  Publish the firm's information about the impact of the firm on:
  - the economy;
  - the environment;
  - the employees with special attention for the work's safety and health;
  - the human rights (with special attention for child labor),
  - information about the firm's vision at the issues signaled before and the internal and external guidelines regarding CSR policy.
- *Stakeholder dialogue and chain responsibility*
  Information published by the firm regarding the identity of the external stakeholders, through which the firm maintains a dialogue related to CSR issues, dilemmas concerning CSR activities and the position of the firm in the major product chain.

- *Embedding of CSR policy*
  Publish the firm's information about:
  - the general CSR policy;
  - the policy regarding the stakeholders' dialogues; and
  - regarding the chain responsibilities the policy.
- *Results and target*
  Providing information concerning CSR policy such as the results in the past, set targets, and about the future targets.

- *Design*
  Does the design of the reports represent the transparency level of CSR reporting?

- *Verification*
  Does an independent professional party verify CSR part of the report?

As signaled earlier, this research, for the content analysis, will use the same indicator and coding method that has been used in the study of MEZ that was conducted by PricewaterhouseCoopers institute.

5.4 **Financial performance measurement indicator**

This study will apply the measures such as return on assets (ROA), return on equity (ROE), and return on sales (ROS) as its indicators to measure financial performances of the sample. The variables were chosen based on following reasons. First reason can be the fact that returns on equity is the most widely reported measure of profitability (Hawkins, 1998, p. 45). It is also a relevant measure to shareholders' interest (Berstein and Wild, 1998, p. 30). Besides, Return on sales and return on assets are sensitive indicators for profitability (Ruf et al, 2001, p. 147). Second reason is that return on assets, return on sales, and return on equity are the most used measurements that applied in these types of researches. These three measurement indicators are the most frequently used for measuring the level of financial performance (Griffin and Mahon 1997, p. 20).
To identify these three measurement indicators, the following definitions will be used:

- ROA= Net income/ Total assets
- ROE= Net income/ Common stockholders' equity
- ROS= Net income/ Total assets

In the next paragraph, the relationship between CSR activities and financial performance will be explained.

5.5 **The relationship between CSR and financial performance**

The methodology used to measure the relationship between CSR performance and the financial performance is conducted in two main areas. The first area focuses on the direction and strength of the relationship, which gained a title as "sign of the relationship" in this research. The second area is concerned with the "statistical association" between CSR performance and financial performance.
However both areas might be closely related to each other, but they conceptually vary from each other. As signaled before the first type is a correlation analysis, in which the initial goal is to compute the degree of linear association between two variables. The correlation coefficient measures this strength of (linear) association. In the second model of analysis that measures the association statistically, the research is not primarily interested in strength or direction; instead, it is trying to evaluate or foresee the average value of one variable based on the fixed values of other variables. Regression and correlation have several fundamental differences. In regression analysis, an asymmetry exists in the way which independent and dependent variables are treated. This implies that the dependent variable is statistically random, and the independent variable has an explanatory function, which has fixed values in repeated sampling. Whereas, in correlation analysis none of two

variables are symmetrically treated, which means there is no distinction between the dependent and independent variables (Gujarati, 2003, p. 23 -24).

Sign of the relationship

To analyze the relationship between CSR- and financial performance, this study will use Pearson correlation analysis. This will be conducted by using SPSS program. Subsequently, the hypotheses; H1 ***'a negative relationship exists between CSR- and the financial performance of a firm,'*** H2 ***'a neutral relationship exists between CSR performance and the financial performance of a firm,'*** and H3 ***'a positive relationship exists between CSR performance and the financial performance of a firm'*** will be tested. The data includes CSR measurement indicators and financial performance measurement indicators for years 2006 to 2010. By using Pearson correlation formula, CSR scores of two consecutive years (E.g. 2006 and 2007) and ROA, ROE, and ROS values for the same years will be compared. Pearson correlation can be explained as the Covariance of two variables divided by their standard deviations. The main formula can be derived as follows:

$$\rho_{CSR,\,FP} = COV_{(CSR,\,FP)} / \sigma_{(CSR)} * \sigma_{(FP)}$$

Where ρ stands for correlation and COV for covariance and σ represents the standard deviation. CSR stands for CSR scores, and FP represents the financial performance in this research, which are ROA, ROE, and ROS.

Relation between CSR performance and the financial performance

The relation between CSR performance and the financial performance will be analyzed by conducting a multiple regression model in SPSS. The data for this analysis is composed of CSR measurement indicators, financial performance measurement indicators, and the control variables for years 2006 to 2010. This research unlike the MEZ study is only concerned with focusing on the fact that CSR performance forms the independent variable and the financial performance will be the dependent variable. Size of the firm and the related industry will be the control variables. In this regard, CSR performance will be considered as the starting point for the analysis.

CSR performance as the starting point

The hypotheses H4 '***Corporate social responsibility reporting is associated with the financial performance'*** and 'H5 ***Corporate social responsibility reporting is not necessarily associated with the financial performance'*** will be tested by forming a multiple regression equation. The main formula will be delineated as follows:

$$FP_{t} = CSRP_{t-1} + Size_{t-1} + Industry$$

Where:

FP = Financial Performance (ROA, ROE, ROS)

CSRP= CSR Performance (CSR scores)

Size = Assets and/or Sales

t. 1= starting point or initial year

t = next year

The following regression equations are derived from the main formula:

- Financial performance 2010 = CSR performance 2009 + size 2009+ industry
- Financial performance 2009 = CSR performance 2008 + size 2008+ industry
- Financial performance 2008 = CSR performance 2007 + size 2007+ industry
- Financial performance 2007 = CSR performance 2006 + size 2006+ industry

As clearly shown, in these formulae, CSR performance of the initial year is considered as the independent variable and financial performance of the following year as the dependent

variable. The regression equations will test hypotheses H4 and H5. The relation between the formulae and the hypotheses can be interpreted as, whether providing CSR reporting of the initial year will affect the financial performance of the following year.

5.6 **Sample firms**

The sample are all Oil, Gas and Mining companies listed on their location's stock exchange within the European Union derived from Thomson One Banker databank. Two criteria have been applied for this selection. First, the firms should be quoted at their local stock exchanges within the EU for the entire years from 2006 to 2010. Second, the firms have to employ the same accounting standards and principles for the years from 2006 to 2010.

- OMV AG (Austria)
- Petroleos "Cepsa" (Spain)
- Repsol YPF SA (Spain)
- Neste Oil OYJ (Finland)
- Esso (France)
- GDF Suez (France)
- Total SA (France)
- BG Group PLC (UK)
- BP PLC (UK)
- Hellenic Petroleum SA (Greece)
- MOL Hungarian Oil And Gas PLC (Hungary)
- ERG Spa (Italy)
- Royal Dutch Shell (the Netherlands)
- Statoil ASA (Norway)
- Galp Energia Sgps (Portugal)
- Graphit Kropfmuhl AG (Germany)
- Imerys (France)
- Vedanta Resources PLC (UK)
- Anglo American PLC (UK)
- Antofagasta PLC (UK)
- BHP Billiton PLC (UK)
- Eurasian Natural Resources Corp. PLC (UK)
- Griffin Mining PLC (UK)
- Hochschild Mining PLC (UK)
- Kazakhmys PLC (UK)
- Rio Tinto PLC (UK)
- Xstrata PLC (UK)
- S & B Industrial Minerals SA (Greece)
- Boliden AB (Sweden)

Among 21, Oil, Gas and 68 Mining firms in Europe, 30 firms have been chosen for this research namely 16 for Oil, Gas and 14 for Mining firms. Assumptions behind this selection are first the availability of their data and size of the companies. There is no certain standard for defining the large- sized firms. The definition of large companies are rather understood when they are not small or medium-sized firms. In many regions including the EU, there are mainly three criteria for small and medium-sized firms, which mostly have been regarded as standards or even mandated by law. This study uses the definition of large- sized firms,

which is stated by BDO (Binder Hamlyn, Dijker and Otte) in the Netherlands. According to BDO, a firm is considered medium- sized if
a) value of the assets does not exceed 17,5 million Euros,
b) the turnover of a financial year does not exceed 35 million Euros,
c) the average of the employees is not more than 250 (BDO, 2011, p. 1).
Consequently, firms with higher assets, turnovers, or employees than those of medium-sized firms are regarded as large- sized firms. This research will use these criteria for defining its large- sized firms. Hereafter, in this research, large- sized firms are firms with a higher financial performance than the medium-sized ones. Applying these criteria, only 30 companies remain for the selection.

5.7 Control variables

Size and industry were suggested as control variables in the previous studies, which are important influential factors in firms' financial- and CSR performance.

Size

It has unanimously been proven that larger firms are more explicit in their attitude toward CSR compared to smaller firms (Waddock and Graves, 1997, p. 308). Naturally, as firms expand, they would appeal to a more significant audience of external stakeholders, hence it necessitates them to open transparent dialogues with their stakeholders. The total assets of the firm or its total sales are proxies for the variables that demonstrate the size.

Industry

This study is only related to two Industries, Oil, Gas and Mining. Both industries will be classified based on the 4-digit SIC code.

5.8 Summary

This study is neither a survey nor a questionnaire research, however, due to its nature, it can be considered as a quasi- experiment. Since CSR issues are mostly referring to concepts, meanings, symbols, and definitions, these types of studies are more subjective. Consequently, to evaluate and conduct such a research, collection of narrative data is required, which falls under qualitative research. As signaled before a qualitative research is more "soft" science and subjective. To measure and quantify a qualitative research, a proxy with several indicators are chosen and for each indicator a number from zero to two are granted. Because this research attempts to evaluate annual and/ or CSR reports of sample companies within the range of the European Union regarding CSR policies and these reports are textual and narrative, hence, the study will be a content analysis of the reports provided by the sample from years 2006 to 2010. In order to conduct a content analysis and thus quantify it, this study needs a measurement to quantify its outcomes regarding CSR policies incorporated by the sample companies. Discussing CSR policies and issuing yearly reports about CSR implies that a dialogue should be open with the stakeholders to assure the concerning stakeholders about incorporating CSR policies and performing them in a proper manner. As CSR reports are a dialogue with the society, the most significant issue in a dialogue is the clearness and openness, which can be translated as transparency.
This research uses transparency of the reports as a proxy to gauge the extent of CSR performance. With respect to evaluating the transparency of the reports, there are criteria and indicator needed. In this regard, this research uses the criteria that have been developed by Global Rating initiatives (GRI). These are nowadays generally accepted and valid. To establish the indicators derived from these criteria, this study has used the same indicators developed in a research that was conducted for Ministry of Economic affair of the

Netherlands (MEZ) by PricewaterhouseCoopers (PwC) in 2006. The signaled indicators are respectively: Profile of the firm, Social impact of the firm's operation, Stakeholder dialogue and chain responsibility, Embedding of CSR policy, Results and target, Design and Verification. Subsequently, several elaborate indicators derived and developed from these major indicators to grant a weight from zero to two in each performance of CSR in the studied reports. As it discussed before by Beattie et al (2004, p. 216), a content analysis involves the classifying of the text units into the categories. By using this method, the researcher analyzes textual information that is based on data reduction. In order to draw a valid conclusion from the analysis, it should be reliable and valid. Coding system in content analysis permits researchers to quantify the qualitative data that allows the researcher to use statistical analysis. Consequently, the quantitative data requires that the units of coding be scored at the same way. According to Krippendorff (1980, p. 130) the following three types of reliability can be approached in these types of research. *Stability* or remaining the same coder constantly coding the same context over time, Reproducibility, or inter-coder reliability implies that different coders incur the same outcomes while coding similar content. In addition, Accuracy or the classification degree of the text corresponds to the evaluation models and criteria that have been used by the researchers. To challenge this issue, the current research sent a randomly smaller chosen sample of the evaluated companies, namely ten annual or/ and CSR reports as well as the MEZ evaluating model to three other researchers to be scored by them again and the results be compared. The acquired results by these three sources were reasonably similar. The re-evaluation supports and enhances the reliability of the obtained data from the scoring model. The random sample that contains 10 companies is as follows: OMV AG, Total SA, BG Group PLC, MOL Hungarian Oil And Gas PLC, Royal Dutch Shell, Statoil ASA, Imerys, Anglo American PLC, Xstrata PLC, and Boliden AB. In addition, the hypotheses related to the sign of the relationship between CSR- and financial performance will be analyzed by Pearson correlation analysis. Pearson correlation model will analyze the hypotheses in the area of the sign of relationship between the CSR- and financial performance. Furthermore, the hypotheses falling under the category of the statistical association between CSR performance and financial performance will be analyzed by conducting a multiple regression equation in SPSS. Alternatively, this research selected Return on Assets (ROA), Return on Equity (ROE), and Return on Sales (ROS) as indicators to represent the financial performance. The chosen sample are thirty Oil, Gas and Mining companies listed on their location's stock exchange within the European Union derived from THOMOSN databank for years 2006 to 2010. Concerning these selections, two criteria are applied. First, listed on the stock exchange within the EU and second, using the same accounting standards for the concerning years. As control variables, this research used Size and Industry.

In the next chapter, the empirical part of this study will be presented.

6 Empirical research

6.1 Introduction

This chapter introduces the outcomes regarding the empirical analysis of this research. With respect to these findings, this chapter will answer sub-questions 11 and 12. In order to finalize these answers, this chapter is divided into six divisions namely paragraphs 6.2 to 6.7, in which different parts of questions such as their statistics analyses and regression models will be expounded. Paragraph 6.2 describes the results that were derived from the content analysis of the annual- and/ or CSR reports for the year 2006 to 2010. In addition, paragraph 6.3 will present financial performances' data and their descriptive statistics respectively. Paragraph 6.4 will explain the data belonging to the control variables. Paragraph 6.5 will provide an analysis regarding the sign of the relationship, by which the strength, as well as the direction of CSR- and financial performance, will be measured. In this regard, a Pearson correlation analysis will be presented. Paragraph 6.6 will discuss the analysis of the statistical association between CSR and financial performance. Unlike the MEZ study, the statistical association will only be tested by one analytical method. This method considers CSR performance as the starting point of the relationship for the years 2006 to 2010. Additionally, in this paragraph, the difference between the sign of relationship and the statistical association will be described. Paragraph 6.7 is the ultimate paragraph that provides a summary of this chapter.

6.2 CSR performance data

Using an evaluation model, this research conducted an extensive content analysis and derived its required data from annual- and/ or CSR reports belonging to the sample firms for the years 2006 to 2010.

As commented before in the previous chapter, this research applies the evaluation model for transparency level of CSR reporting, which was developed by PricewaterhouseCoopers in accomplishing an assignment under Dutch Ministry of Economics Affairs' request. This model has been derived from GRI application and both are provided in appendix C, presented in CD-ROM. As signaled before, CSR measure is classified in seven major indicators and each indicator is categorized in several statements, which in total presents 58 statements. Each statement gained a certain score depending on the activity described in the statements, which in total included 100 points.

In order to accomplish the coding, the annual and/ or CSR reports of the sample firms were investigated and coded by applying those statements. Consequently, each firm, per statement, received the corresponding score for the years 2006 to 2010. Based on the scores and graphs derived from the content analysis, in Oil and Gas sector, Royal Dutch Shell, Esso, Galp Energia, Stats oil, Total, GDF Suez, ENI, and OMV AG are the forerunners of CSR performance for the years 2006 to 2010. For the same years, Boliden AB, Xstrata, and Anglo American are top three firms in Mining sector for their CSR performance.

In addition, the scoring models of CSR performances, regarding the sample firms, for the period from 2006 to 2010 are presented in the appendices "D to J" in the delivered CD-ROM. The tables 1 and 2 in the next page present total CSR scores of the sample firms and their average for the years 2006 to 2010. Besides, these tables also show the divided CSR scores per industry for the same years:

Table 1-The average scores of CSR for the Oil and Gas industry

Sample firms	CSR2006	CSR2007	CSR2008	CSR2009	CSR2010
OMV AG	91	92	94	96	96
BG Group PLC	90	94	94	96	96
BP PLC	92	92	95	95	96
ENI	93	95	96	98	98
GDF Suez	94	94	95	97	98
Total SA	94	96	98	98	98
Statoil ASA	94	95	97	96	98
Galp Energia Sgps	94	95	95	97	97
Esso	94	95	97	97	97
Royal Dutch Shell	94	95	98	99	99
Repsol YPF SA	84	87	89	91	94
Petroleos (Cepsa)	77	84	88	91	91
MOL Hungarian	80	92	92	84	84
Neste Oil OYJ	74	77	79	79	79
Hellenic Petroleum	70	72	73	82	87
ERG Spa	67	72	79	80	82
Mean	**86**	**89**	**91**	**92**	**93**

Table 2- The average scores of CSR for the Mining industry

Sample firms	CSR2006	CSR2007	CSR2008	CSR2009	CSR2010
Imerys	72	82	84	86	87
Graphit Kropfmuhl	61	59	64	66	67
Vedanta PLC	73	75	77	79	81
Anglo American	92	93	95	96	98
Antofagasta PLC	78	78	78	78	78
BHP Billiton PLC	71	73	75	78	81
Eurasian N RCorp.	63	63	63	64	64
Griffin Mining PLC	53	53	53	56	56
Hochschild Mining	73	76	79	82	83
Kazakhmys PLC	78	76	78	82	85
Rio Tinto PLC	73	73	74	80	81
Xstrata PLC	93	92	96	97	98
S & B Industrial SA	66	66	66	68	69
Boliden AB	92	94	94	96	97
Mean	**74**	**75**	**77**	**79**	**80**

The tables 1 to 5 shown in the appendix J, added in the CD-ROM, present the total scores of CSR performance of the sample. Table 3 in the next page illustrates the differences between CSR scores for the years 2006 to 2010.

Table3 - Differences between CSR scores from the years 2006 to 2010

Sample firms	2006	2007	Difference	2007	2008	Difference	2008	2009	Difference	2009	2010	Difference
OMV AG	91	92	1	92	94	2	94	96	2	96	96	0
BG Group PLC	90	94	4	94	94	0	94	96	2	96	96	0
BP PLC	92	92	0	92	95	3	95	95	0	95	96	1
ENI	93	95	2	95	96	1	96	98	2	98	98	0
GDF Suez	94	94	0	94	95	1	95	97	2	97	98	1
Total SA	94	96	2	96	98	2	98	98	0	98	98	0
Statoil ASA	94	95	1	95	97	2	97	96	-1	96	98	2
Galp Energia Sgps	94	95	1	95	95	0	95	97	2	97	97	0
Esso	94	95	1	95	97	2	97	97	0	97	97	0
Royal Dutch Shell	94	95	1	95	98	3	98	99	1	99	99	0
Repsol YPF SA	84	87	3	87	89	2	89	91	2	91	94	3
Petroleos (Cepsa)	77	84	7	84	88	4	88	91	3	91	91	0
MOL Hungarian	80	92	12	92	92	0	92	84	-8	84	84	0
Neste Oil OYJ	74	77	3	77	79	2	79	79	0	79	79	0
Hellenic Petroleum	70	72	2	72	73	1	73	82	9	82	87	5
ERG Spa	72	82	10	82	84	2	84	86	2	86	87	1
Imerys	67	72	5	72	79	7	79	80	1	80	82	2
Graphit Kropfmuhl	61	59	-2	59	64	5	64	66	2	66	67	1
Vedanta PLC	73	75	2	75	77	2	77	79	2	79	81	2
Anglo American	92	93	1	93	95	2	95	96	1	96	98	2
Antofagasta PLC	78	78	0	78	78	0	78	78	0	78	78	0
BHP Billiton PLC	71	73	2	73	75	2	75	78	3	78	81	3
Eurasian NRC.	63	63	0	63	63	0	63	64	1	64	64	0
Griffin Mining	53	53	0	53	53	0	53	56	3	56	56	0
HochschildMining	73	76	3	76	79	3	79	82	3	82	83	1
Kazakhmys PLC	78	76	-2	76	78	2	78	82	4	82	85	3
Rio Tinto PLC	73	73	0	73	74	1	74	80	6	80	81	1
Xstrata PLC	93	92	-1	92	96	4	96	97	1	97	98	1
S & B Industrial SA	66	66	0	66	66	0	66	68	2	68	69	1
Boliden AB	92	94	2	94	94	0	94	96	2	96	97	1
	81	**83**	**2**	**83**	**85**	**2**	**85**	**86**	**2**	**86**	**87**	**1**

In accordance with the presented CSR scores, five graphs were also developed for the sample firms and their corresponding CSR scores. The graphs are shown in appendix K (presented in the CD-ROM).

The average CSR score for the sample is 81 for the year 2006 and 83 for the year 2007, which shows an increase in CSR performance for the period 2006- 2007. The greatest increase belongs to MOL Hungarian, in the Oil and Gas industry, with a growth of 12 points. For the same period, the most considerable fall among the sample firms belongs to Graphit Kropfmuhl AG and Kazakhmys PLC both of the mining industry with -2 points. Furthermore, the average CSR scores for 2008 have increased to 85 comparing to 2007. ERG SPA, which is an Oil and Gas firm, has the largest rise for the period 2007- 2008, and no fall has been detected for the same period. Moreover, the average score rose to 86 for year 2009. In Oil and Gas sector, for the period 2008- 2009, the biggest rise belongs to Hellenic Petroleum SA with an increase of 9 points and the most noticeable fall belongs to MOL Hungarian with a decrease of -8 points. Comparing to 2009, the average of CSR score has increased by 1 point to 87 for the year 2010. For the period 2009- 2010, the greatest increase belongs to Hellenic Petroleum SA with a rise of 5 points and no fall has been detected concerning this period. Table 1 and 2 provide information, which will be used for generating the required information in SPSS. These data are needed for the analysis concerning the direction and

strength of the relationship between CSR- and financial performance regarding the European Oil, Gas, and Mining listed firms. These data have been processed in SPSS program, and the result is presented below in table 4:

Table 4- Descriptive statistic CSR performance data

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CSR2006	30	53	94	80,67	12,260
CSR2007	30	53	96	82,67	12,485
CSR2008	30	53	98	84,50	12,489
CSR2009	30	56	99	86,13	11,788
CSR2010	30	56	99	87,17	11,742
Valid N (listwise)	30				

The table provides the descriptive statistics data of CSR performance for years 2006 to 2010. The standard deviation of CSR scores for the period 2006 to 2010 is respectively 12.26, 12.49, 12.49, 11.79, and 11.74 points.

6.3 **Financial performance data**

The financial performance indicators that were applied in this research are Return on Assets (ROA), Return on Equity (ROE), and Return on Sales (ROS). The data for these indicators are extracted from financial databases WorldScope and Thomson One Banker shown in appendix L (CD-ROM) tables 1 to 3. The concerning methodology of the calculation ROA, ROE and ROS has already been provided in the previous chapter. Besides, in the next page, the descriptive statistics are presented in table 5.

Table 5 - Descriptive statistics for financial performance data

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ROA2010	30	-1,218	10,486	4,93293	3,124681
ROA2009	30	-,103	33,664	7,10729	7,150368
ROA2008	30	-1,126	26,368	10,48096	6,665676
ROA2007	30	4,481	55,893	14,38409	10,839469
ROA2006	30	,923	25,674	11,59315	5,934328
ROE2010	30	-4,087	19,441	9,32009	6,255370
ROE2009	30	-3,176	39,776	12,29642	8,890665
ROE2008	30	-2,539	46,658	18,74766	11,823488
ROE2007	30	9,054	48,156	25,00761	11,369340
ROE2006	30	,896	89,690	24,03217	15,637213
ROS2010	30	-1,252	27,277	7,78751	7,749919
ROS2009	30	-4,381	50,599	9,63830	11,958603
ROS2008	30	-,268	70,447	13,59508	15,077681
ROS2007	30	1,681	68,852	14,26160	13,969660
ROS2006	30	,733	29,681	11,26533	8,177657
Valid N (listwise)	30				

The Minimums, maximums, means and standard deviations of the signaled variables for the financial performance are presented in the same table.

6.4 **Control variables data**

As signaled in the previous chapter, size and industry of the sample firms are two control variables for this research. Size of the sample firms will be measured by total assets and total sales. Tables 1 and 2 in appendix M (included in the CD-ROM) illustrate the data of total assets and total sales, which derived from Worldscope database. Furthermore, their descriptive statistics shown in the next page, in table 6 presents the minimum, maximum, means and standard deviations of size for period 2006 to 2010.

Table 6 - Descriptive statistics for the control variable size

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Assets2010	30	87,276	217305,751	41042,69138	6,115805E4
Assets2009	30	53,119	202363,316	35603,96443	5,270350E4
Assets2008	30	40,712	189452,278	31707,90948	4,867540E4
Assets2007	30	37,227	177196,207	28662,00511	4,488178E4
Assets2006	30	24,258	176817,066	26589,98458	4,461973E4
Sales2010	30	17,273	278824,503	38812,73259	6,526846E4
Sales2009	30	17,927	199441,323	31603,98674	4,894048E4
Sales2008	30	21,760	311914,661	41567,39519	7,236735E4
Sales2007	30	30,870	257885,025	34422,25580	6,003787E4
Sales2006	30	4,556	251807,839	32889,54295	5,938182E4
Valid N (listwise)	30				

In addition to CSR performance, the sample firms are classified to their corresponding industries by using the SIC codes. The SIC codes and the industry classification of the sample are presented in table 7 below. It is remarkable to indicate that only two industries have been used in this study, namely Oil, Gas and Mining industries. According to table 7, the highest CSR performance in this sample belongs to the Oil, Gas firms with an average of 90 points and the Mining is with an average of 77 points. These outcomes, which show CSR performance per industry, are only applicable in this research.

Table 7 - Sic code and A/D office code

SIC Code	A/D Office	Average SCR scores	Industry Title
1311	4	90	CRUDE PETROLEUM & NATURAL GAS
1381	4	90	DRILLING OIL, GAS WELLS
1382	4	90	OIL, GAS FIELD EXPLORATION SERVICES
1389	4	90	OIL, GAS FIELD SERVICES, NEC
1000	9	77	METAL MINING
1040	9	77	GOLD AND SILVER ORES
1090	9	77	MISCELLANEOUS METAL ORES
1220	9	77	BITUMINOUS COAL & LIGNITE MINING
1221	9	77	BITUMINOUS COAL & LIGNITE SURFACE MINING
1400	9	77	MINING & QUARRYING OF NONMETALLIC MINERALS (NO FUELS)

The A/D codes, namely 4 for Oil, Gas and 9 for Mining that added in the regression equations are representing industry for years 2006 to 2010.
As explained in the previous chapters, this study distinguishes between two types of relationships that have been formulated in two main groups of hypotheses. These groups have been identified as the sign of relationship and the statistical association between the two variables. The first type that concerns with the sign of relationship implies the direction

or strength of the relationship between the two main variables i.e. CSR performance and financial performance. In this regard, the first group of the hypotheses namely H1, H2 and H3 will be tested that are representing the positive, negative or neutral direction between the variables for years 2006 to 2010.
The second group of hypotheses is concerned with the statistical association between CSR- and financial performance, by which this research attempts to define whether one variable can explain the behavior of the other. On this point, two hypotheses, explicitly H4, H5 will be examined for the period 2006- 2010 and will be researched whether those signaled main variables would have an impact on each other or increasing/ decreasing of one could necessarily lead to increasing/ decreasing of the other.

6.5 **Analysis concerning the sign of relationship**

As signaled earlier, the sign of relationship between CSR- and financial performance is tested by Pearson correlation analysis with SPSS program. The applied data are CSR performance indicators and financial performance indicators for the years 2006 - 2007, 2007 - 2008, 2008 - 2009, and 2009 - 2010 respectively. In a linear model, a Pearson correlation coefficient is a measure of the correlation between two variables that provides a value (labeled as R), which shows the strength and direction of the two variables.
A two-tailed Pearson bivariate correlation analysis has been conducted on the variables CSR scores 2007 to 2010, CSR 2006 to 2010, ROA 2006 to 2010, ROA 2007 to 2010, ROE 2006 to 2010, ROE 2007 to 2010, ROS 2006 to 2010 and ROS 2007 to 2010. This analysis provides three types of significant levels that are represented as 1 percent, 5 percent, and 10 percent level of significance, however, in this research significant level of 1 percent will not be taken into account. The null hypothesis is defined by Pearson correlation coefficient “R”. It has the value of zero, which implies that no relation exists between the variables. On the contrary, there is an alternative hypothesis with R that has no value equal to zero, by which the test defines that there exists an association between the variables. The calculated R equals to +1 when a perfect positive association exists between the variables, and the value of -1 indicates a perfect negative association. The tables 1 to 4 presented in the following pages illustrate the Pearson correlation matrix conducted with SPSS for five years, namely, from 2006 to 2010.

2006-2007

According to calculated Pearson correlation matrix, the relationship between variables CSR score 2006, ROA 2007 and ROS 2007 is statistically significant at the level of 5 percent. With this regard, the correlation coefficient or hereafter called “R” of CSR score 2006, ROA 2007and CSR 2006 and ROS 2007 equals to -0.407 -0.432 respectively, and their p-value are 0.026 and 0.017. This outcome supports a significant negative relationship between CSR- and financial measurement indicators.
Furthermore, at the significant level of 10 percent, there is again a negative association between CSR score 2007 and ROE 2007 with R equals to -0.357 and p-value of 0.052 as well as between CSR score 2006 and ROE 2007 which includes R at 0.102 and a p-value of -0.305. Table 8 shows the Pearson Correlation for the concerning years:

Table 8- Pearson correlation 2006-7

Correlations

		CSR 2006	CSR2007	ROA 2007	ROA 2006	ROE 2007	ROE 2006	ROS 2007	ROS 2006
CSR 2006	Pearson Correlation	1	,969**	-,407*	-,065	-,305	-,079	-,432*	-,110
	Sig. (2-tailed)		,000	,026	,733	,102	,679	,017	,564
	N	30	30	30	30	30	30	30	30
CSR2007	Pearson Correlation	,969**	1	-,472**	-,118	-,357	-,084	-,503**	-,197
	Sig. (2-tailed)	,000		,008	,536	,052	,660	,005	,297
	N	30	30	30	30	30	30	30	30
ROA 2007	Pearson Correlation	-,407*	-,472**	1	,377*	,875**	,170	,957**	,487**
	Sig. (2-tailed)	,026	,008		,040	,000	,368	,000	,006
	N	30	30	30	30	30	30	30	30
ROA 2006	Pearson Correlation	-,065	-,118	,377*	1	,510**	,868**	,400*	,893**
	Sig. (2-tailed)	,733	,536	,040		,004	,000	,028	,000
	N	30	30	30	30	30	30	30	30
ROE 2007	Pearson Correlation	-,305	-,357	,875**	,510**	1	,248	,841**	,612**
	Sig. (2-tailed)	,102	,052	,000	,004		,187	,000	,000
	N	30	30	30	30	30	30	30	30
ROE 2006	Pearson Correlation	-,079	-,084	,170	,868**	,248	1	,248	,679**
	Sig. (2-tailed)	,679	,660	,368	,000	,187		,187	,000
	N	30	30	30	30	30	30	30	30
ROS 2007	Pearson Correlation	-,432*	-,503**	,957**	,400*	,841**	,248	1	,578**
	Sig. (2-tailed)	,017	,005	,000	,028	,000	,187		,001
	N	30	30	30	30	30	30	30	30
ROS 2006	Pearson Correlation	-,110	-,197	,487**	,893**	,612**	,679**	,578**	1
	Sig. (2-tailed)	,564	,297	,006	,000	,000	,000	,001	
	N	30	30	30	30	30	30	30	30

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

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

2007- 2008

A relatively similar result is derived from the Pearson correlation matrix for the years 2007 and 2008. CSR 2008 presents a statistical significant negative association with ROE 2007 at the significant level of 5 percent, with R of -0.392 and p-value of 0.032. At the level of 10 percent significance, CSR score 2007 shows a value of R with -0.323 and P-value of 0.082 which supports a negative association between CSR score 2007 and ROA 2008. It is also noticeable that, at 10 percent level of significance, a negative association exists between CSR 2008 and ROA 2008 with R of -0.343, p-value of 0.063, which supports the negative association between CSR performance and the financial performance for the period 2007-2008. Table 9 shows the Pearson Correlation for the years 2007 and 2008:

Table 9- Pearson correlation 2007-8

Correlations

		CSR 2007	CSR2008	ROA 2008	ROA 2007	ROE 2008	ROE 2007	ROS 2008	ROS 2007
CSR 2007	Pearson Correlation	1	,991**	-,323	-,472**	-,159	-,357	-,511**	-,503**
	Sig. (2-tailed)		,000	,082	,008	,401	,052	,004	,005
	N	30	30	30	30	30	30	30	30
CSR2008	Pearson Correlation	,991**	1	-,343	-,508**	-,163	-,392*	-,541**	-,537**
	Sig. (2-tailed)	,000		,063	,004	,388	,032	,002	,002
	N	30	30	30	30	30	30	30	30
ROA 2008	Pearson Correlation	-,323	-,343	1	,683**	,839**	,775**	,775**	,726**
	Sig. (2-tailed)	,082	,063		,000	,000	,000	,000	,000
	N	30	30	30	30	30	30	30	30
ROA 2007	Pearson Correlation	-,472**	-,508**	,683**	1	,337	,875**	,907**	,957**
	Sig. (2-tailed)	,008	,004	,000		,068	,000	,000	,000
	N	30	30	30	30	30	30	30	30
ROE 2008	Pearson Correlation	-,159	-,163	,839**	,337	1	,613**	,478**	,428*
	Sig. (2-tailed)	,401	,388	,000	,068		,000	,008	,018
	N	30	30	30	30	30	30	30	30
ROE 2007	Pearson Correlation	-,357	-,392*	,775**	,875**	,613**	1	,768**	,841**
	Sig. (2-tailed)	,052	,032	,000	,000	,000		,000	,000
	N	30	30	30	30	30	30	30	30
ROS 2008	Pearson Correlation	-,511**	-,541**	,775**	,907**	,478**	,768**	1	,976**
	Sig. (2-tailed)	,004	,002	,000	,000	,008	,000		,000
	N	30	30	30	30	30	30	30	30
ROS 2007	Pearson Correlation	-,503**	-,537**	,726**	,957**	,428*	,841**	,976**	1
	Sig. (2-tailed)	,005	,002	,000	,000	,018	,000	,000	
	N	30	30	30	30	30	30	30	30

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

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

2008- 2009

In alignment with previously stated discussions, the outcomes of Pearson correlation coefficient for the period 2008- 2009 are approximately showing the same characters and aspects. At the significant level of 5 percent, the results illustrate R with a value of -0.308 and a p-value of 0.038, by which the result supports a statistical significant negative association for the period of 2008-2009 between the CSR performance 2009 and financial performance ROA 2008. Subsequently, at a significant level of 10 percent, CSR 2008, ROA 2008, and ROA 2009 respectively contain R with a value of -0.343 and p-value of 0.063 as well as R of -0.308 and p- value 0.098. Additionally, at the same significant level, there is also CSR 2009 and ROA 2009 with R of -0.336 and a p-value of 0.70, by which both results corroborate negative association between the two main variables for the related period that being researched. Table 10 shows Pearson Correlation for the years 2008 and 2009:

Table 10- Pearson correlation 2008-9

Correlations

		CSR 2008	CSR2009	ROA 2009	ROA 2008	ROE 2009	ROE 2008	ROS 2009	ROS 2008
CSR 2008	Pearson Correlation	1	,978**	-,308	-,343	-,200	-,163	-,334	-,541**
	Sig. (2-tailed)		,000	,098	,063	,290	,388	,072	,002
	N	30	30	30	30	30	30	30	30
CSR2009	Pearson Correlation	,978**	1	-,336	-,380*	-,215	-,211	-,360	-,537**
	Sig. (2-tailed)	,000		,070	,038	,253	,263	,051	,002
	N	30	30	30	30	30	30	30	30
ROA 2009	Pearson Correlation	-,308	-,336	1	,632**	,890**	,477**	,868**	,369*
	Sig. (2-tailed)	,098	,070		,000	,000	,008	,000	,045
	N	30	30	30	30	30	30	30	30
ROA 2008	Pearson Correlation	-,343	-,380*	,632**	1	,611**	,839**	,775**	,775**
	Sig. (2-tailed)	,063	,038	,000		,000	,000	,000	,000
	N	30	30	30	30	30	30	30	30
ROE 2009	Pearson Correlation	-,200	-,215	,890**	,611**	1	,645**	,737**	,294
	Sig. (2-tailed)	,290	,253	,000	,000		,000	,000	,115
	N	30	30	30	30	30	30	30	30
ROE 2008	Pearson Correlation	-,163	-,211	,477**	,839**	,645**	1	,531**	,478**
	Sig. (2-tailed)	,388	,263	,008	,000	,000		,003	,008
	N	30	30	30	30	30	30	30	30
ROS 2009	Pearson Correlation	-,334	-,360	,868**	,775**	,737**	,531**	1	,627**
	Sig. (2-tailed)	,072	,051	,000	,000	,000	,003		,000
	N	30	30	30	30	30	30	30	30
ROS 2008	Pearson Correlation	-,541**	-,537**	,369*	,775**	,294	,478**	,627**	1
	Sig. (2-tailed)	,002	,002	,045	,000	,115	,008	,000	
	N	30	30	30	30	30	30	30	30

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

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

2009- 2010

Ultimately, for the years 2009 and 2010, CSR 2010 and ROS 2009 with R of -0.371 and p-value of 0.043 show a statistical significant negative association between the two variables at the significant level of 5 percent. At the significant level of 10 percent, in addition, negative associations exist among CSR 2009 ROA 2009 with R of -0.336 and a p- value of 0.07 and CSR 2009 and ROS 2010 with R of -0.343 and p-value of 0.064. Additionally, CSR 2009 and ROS 2009 show a p-value of R at -0.360 and a p-value of 0.051 respectively. Besides, at the same level of significance, 10 percent, a negative relationship exists between CSR 2010 and ROA 2009 with R of -0.340 and p-value of 0.066. With CSR 2010 and ROS 2010 with R having a value of -0.352 and a p-value of 0.052, which supports a negative association between CSR performance and financial performance for the years 2009 to 2010. Table 11 shows the Pearson Correlation for the years 2009 and 2010:

Table 11- Pearson correlation 2009-10

Correlations

		CSR 2009	CSR2010	ROA 2010	ROA 2009	ROE 2010	ROE 2009	ROS 2010	ROS 2009
CSR 2009	Pearson Correlation	1	,994**	-,066	-,336	,099	-,215	-,343	-,360
	Sig. (2-tailed)		,000	,729	,070	,601	,253	,064	,051
	N	30	30	30	30	30	30	30	30
CSR2010	Pearson Correlation	,994**	1	-,081	-,340	,086	-,211	-,352	-,371*
	Sig. (2-tailed)	,000		,669	,066	,652	,262	,056	,043
	N	30	30	30	30	30	30	30	30
ROA 2010	Pearson Correlation	-,066	-,081	1	,542**	,941**	,439*	,745**	,460*
	Sig. (2-tailed)	,729	,669		,002	,000	,015	,000	,011
	N	30	30	30	30	30	30	30	30
ROA 2009	Pearson Correlation	-,336	-,340	,542**	1	,366*	,890**	,642**	,868**
	Sig. (2-tailed)	,070	,066	,002		,047	,000	,000	,000
	N	30	30	30	30	30	30	30	30
ROE 2010	Pearson Correlation	,099	,086	,941**	,366*	1	,349	,555**	,294
	Sig. (2-tailed)	,601	,652	,000	,047		,059	,001	,115
	N	30	30	30	30	30	30	30	30
ROE 2009	Pearson Correlation	-,215	-,211	,439*	,890**	,349	1	,417*	,737**
	Sig. (2-tailed)	,253	,262	,015	,000	,059		,022	,000
	N	30	30	30	30	30	30	30	30
ROS 2010	Pearson Correlation	-,343	-,352	,745**	,642**	,555**	,417*	1	,749**
	Sig. (2-tailed)	,064	,056	,000	,000	,001	,022		,000
	N	30	30	30	30	30	30	30	30
ROS 2009	Pearson Correlation	-,360	-,371*	,460*	,868**	,294	,737**	,749**	1
	Sig. (2-tailed)	,051	,043	,011	,000	,115	,000	,000	
	N	30	30	30	30	30	30	30	30

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

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

With respect to overall statistical significant negative association outcomes derived from Pearson correlation coefficient test between CSR performances and financial performances for the years 2006 to 2010 among the Oil, Gas and Mining firms quoted in European stock exchanges, the hypotheses H2 and H3 stated in chapter four are rejected. In this research, the analysis regarding the sign of relationship supports the hypothesis H1 that was formulated as:

"A negative relationship exists between CSR performance and financial performance of the firms."

6.6 The analysis of the statistical association between CSR performance and financial performance

The analysis of the relation regarding CSR performance and financial performance has been conducted by applying a multiple regression models with SPSS program. As indicated in the

previous chapter, the collected data pertaining to 30 Oil, Gas and Mining firms contains three variables that can be defined as CSR performance measurement indicators, financial performance measurement indicators, and control variables for the years 2006 to 2010. The multiple regressions concerning these variables have been conducted only in one group for a different pair of years, namely the years 2006-2007, 2007-2008, 2008-2009, and 2009-2010. This area of the research considers CSR performance as the starting point of the relationship. In total, 24 regression formulae were researched regarding four pairs of years.

CSR performance as the starting point

The first group of the relation analysis considers CSR performance measurement indicators as the starting point. CSR as the starting point in this research implies that SCR scores of the sample firms are considered as the independent variable and financial performances such as ROA, ROS, and ROE will be the dependent variables. These data will be presented in a regression model for the pair of years namely 2006-2007, 2007- 2008, 2008-2009 and 2009-2010, in which CSR performance of each initial year will be considered as the starting point. Consequently, the main formula for this regression model is:

$FP_{t} = CSRP_{t\,1} + Size_{t\,1} + Industry$

Where:
FP = Financial Performance (ROA, ROE, ROS)
CSRP= CSR Performance (CSR scores)
Size = Assets and/or Sales
t 1= starting point or initial year
t = next year

After constructing the main formula for testing whether the null hypotheses stated in chapter four namely hypothesis H4 and H6 will be accepted or not, this study will apply the formula with the concerning data in a pair of years. Consequently, the collected data will be used in different pairs of years consecutively. The pair of years that are considered in this research are respectively 2006- 2007, 2007- 2008, 2008- 2009, 2009- 2010.

2006- 2007

The collected and applied data for the year 2006- 2007 are CSR scores of the sample for the year 2006 (starting point) which functions as the independent variable and financial performances such as ROA, ROE and ROS for the years 2007 that function as dependent variables. Besides, total assets and total sales both for the year 2006 representing the size of the sample as well as the industry are functioning as control variables in the regression model. A formula for this relationship can be derived from the main formula:

$Financial\ performance_{2007} = CSR\ performance_{2006} + Size_{2006} + Industry$

By placing various financial indicators as well as indicators for size in the model, six regression equations will be formulated as follows:

1. $ROA_{2007} = CSR\ score_{2006} + Total\ Assets_{2006} + Industry$
2. $ROA_{2007} = CSR\ score_{2006} + Total\ Sales_{2006} + Industry$
3. $ROE_{2007} = CSR\ score_{2006} + Total\ Assets_{2006} + Industry$
4. $ROE_{2007} = CSR\ score_{2006} + Total\ Sales_{2006} + Industry$
5. $ROS_{2007} = CSR\ score_{2006} + Total\ Assets_{2006} + Industry$
6. $ROS_{2007} = CSR\ score_{2006} + Total\ Sales_{2006} + Industry$

These regression models with their concerning data have been tested in SPSS, and the detailed results from regression 1 to 6 are presented below:

ROA_{2007}=27.051–0.308*CSR $score_{2006}$+2.191E-5 *Total $Assets_{2006}$+2.044*Industry

ROA_{2007}=27.064–0.305*CSR score2006+1.328E-5 *Total $Sales_{2006}$+2.030*Industry

ROS_{2007}=23.144–0.355*CSR$score_{2006}$+3.290E-5 *Total $Assets_{2006}$+3.341*Industry

ROS_{2007}=24.257–0.354*CSR$score_{2006}$+1.227E-5 *Total $Sales_{2006}$+3.232*Industry

The tables show that whole regressions 1, 2, 5, and 6 have significant results.
The ANOVA tables presenting the whole regressions 1, 2 show respectively p-values of 0.069, 0.070 which are significant at 10 percent level. These outcomes indicate that the fluctuation of ROA 2007 is dependent on the changes in variables such as CSR performance of 2006, total assets of 2006, and the industry all together. As shown below, the regression equations 1 and 2 can be rated by the values extracted from the Coefficient table. Nevertheless, the coefficient tables show that the independent variables separately have no significant effect on ROA2007. For the whole regression equations 5 and 6, their ANOVA tables present respectively, p-values of 0.023 and 0.024 that favorably are statistically significant at the significant level of 5 percent. This indicates that variable ROS2007 is dependent on the variables CSR2006, total assets, and industry together. Subsequently, the regression equations 5 and 6 can be derived from the Coefficient table 4 and 5. The Coefficient tables show the only variables which shows a significant positive effect on ROS2007, is the industry with p-values of 0.052 and 0.065 at the significant level of 10 percent. The others variables show no significant effect on ROS2007.

Regression 1

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1666,853	3	555,618	2,666	,069[a]
	Residual	5417,806	26	208,377		
	Total	7084,659	29			

a. Predictors: (Constant), Industry, Total Assets 2006, CSR 2006

b. Dependent Variable: ROA 2007

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27,051	26,720		1,012	,321
	CSR 2006	-,308	,259	-,242	-1,190	,245
	Total Assets 2006	2,191E-5	,000	,063	,333	,742
	Industry	2,044	1,346	,332	1,518	,141

a. Dependent Variable: ROA 2007

Regression 2

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1658,247	3	552,749	2,648	,070[a]
	Residual	5426,413	26	208,708		
	Total	7084,659	29			

a. Predictors: (Constant), Industry, Total Sales 2006, CSR 2006

b. Dependent Variable: ROA 2007

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27,064	27,093		,999	,327
	CSR 2006	-,305	,260	-,239	-1,175	,251
	Total Sales 2006	1,328E-5	,000	,050	,263	,795
	Industry	2,030	1,378	,329	1,473	,153

a. Dependent Variable: ROA 2007

Regression 5

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3470,251	3	1156,750	3,752	,023[a]
	Residual	8016,314	26	308,320		
	Total	11486,564	29			

a. Predictors: (Constant), Industry, Total Assets 2006, CSR 2006

b. Dependent Variable: ROS 2007

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	23,144	32,502		,712	,483
	CSR 2006	-,355	,315	-,218	-1,126	,270
	Total Assets 2006	3,290E-5	,000	,074	,410	,685
	Industry	3,341	1,637	,426	2,041	,052

a. Dependent Variable: ROS 2007

Regression 6

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3430,622	3	1143,541	3,691	,024[a]
	Residual	8055,943	26	309,844		
	Total	11486,564	29			

a. Predictors: (Constant), Industry, Total Sales 2006, CSR 2006

b. Dependent Variable: ROS 2007

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24,257	33,011		,735	,469
	CSR 2006	-,354	,317	-,218	-1,118	,274
	Total Sales 2006	1,227E-5	,000	,037	,199	,843
	Industry	3,232	1,679	,412	1,925	,065

a. Dependent Variable: ROS 2007

2007- 2008

The collected and applied data for the year 2007- 2008 are CSR scores of the sample for the year 2007 (starting point) which functions as the independent variable and financial performances such as ROA, ROE and ROS for the years 2008 that function as dependent variables. Besides, total assets and total sales both for the year 2007 representing the size of the sample as well as the industry are functioning as the control variables in the regression model. A formula for this relationship can be derived from the main formula:

Financial performance $_{2008}$ = *CSR performance* $_{2007}$ + *Size* $_{2007}$ + *Industry*

By adding various financial performance measurement indicators and variables for size in the model, six regression equations will be formulated:

1. $ROA_{2008} = CSR\ score_{2007} + Total\ Assets_{2007} + Industry$
2. $ROA_{2008} = CSR\ score_{2007} + Total\ Sales_{2007} + Industry$
3. $ROE_{2008} = CSR\ score_{2007} + Total\ Assets_{2007} + Industry$
4. $ROE_{2008} = CSR\ score_{2007} + Total\ Sales_{2007} + Industry$
5. $ROS_{2008} = CSR\ score_{2007} + Total\ Assets_{2007} + Industry$
6. $ROS_{2008} = CSR\ score_{2007} + Total\ Sales_{2007} + Industry$

These regression models with their concerning data have been tested in SPSS, and the detailed results from regressions 1 to 6 are generated:

$ROA_{2008} = -8.882 + 0.044 * CSR\ score_{2007} + 4.214E\text{-}5 * Total\ Assets_{2007} + 2.300 * Industry$

$ROA_{2008} = -8.541 + 0.047 * CSR\ score_{2007} + 2.600E\text{-}5 * Total\ Sales_{2007} + 2.264 * Industry$

$ROE_{2008} = -33.077 + 0.266 * CSR\ score_{2007} + 2.191E\text{-}5 * Total\ Assets_{2007} + 2.044 * Industry$

$ROE_{2008} = -32.635 + 0.274 * CSR\ score_{2007} + 7.115E\text{-}5 * Total\ Assets_{2007} + 2.044 * Industry$

$ROS_{2008} = 24.476 – 0.359*CSR\ score_{2007} + 1.517E\text{-}5\ *Total\ Assets_{2007} + 3.051*\ Industry$
$ROS_{2008} = 26.308 – 0.366*CSR\ score_{2007} - 1.694E\text{-}7\ *Total\ Assets_{2007} + 2.9174*\ Industry$

The tables show that regressions 1 to 6 have significant results.
The ANOVA tables presenting the whole regressions 1 to 6 show respectively p-values of 0.009, 0.012, 0.019, 0.031, 0.007, and 0.007 that are significant at 5 percent level. These outcomes support that ROA2008, ROE2008, and ROS2008 are dependent on the variables CSR performance of 2007, total assets of 2007, and the industry all together.
However, the Coefficient tables show that the independent variables solely have no significant effect on ROA2008, ROE2008, and ROS2008.
The regression equations 1 to 6 can be rated by the values extracted from the Coefficient table as shown hereafter.

Regression 1

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	726,523	3	242,174	4,740	,009[a]
	Residual	1328,511	26	51,097		
	Total	2055,034	29			

a. Predictors: (Constant), Industry, Total Assets 2007, CSR 2007

b. Dependent Variable: ROA 2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8,882	14,831		-,599	,554
	CSR 2007	,044	,137	,066	,325	,748
	Total Assets 2007	4,214E-5	,000	,225	1,287	,209
	Industry	2,300	,727	,693	3,165	,004

a. Dependent Variable: ROA 2008

Regression 2

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	697,957	3	232,652	4,457	,012[a]
	Residual	1357,077	26	52,195		
	Total	2055,034	29			

a. Predictors: (Constant), Industry, Total Sales 2007, CSR 2007

b. Dependent Variable: ROA 2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8,541	15,149		-,564	,578
	CSR 2007	,047	,139	,069	,338	,738
	Total Sales 2007	2,600E-5	,000	,185	1,036	,310
	Industry	2,264	,747	,682	3,030	,005

a. Dependent Variable: ROA 2008

Regression 3

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1906,570	3	635,523	3,949	,019[a]
	Residual	4183,739	26	160,913		
	Total	6090,309	29			

a. Predictors: (Constant), Industry, Total Assets 2007, CSR 2007

b. Dependent Variable: ROE 2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-33,077	26,320		-1,257	,220
	CSR 2007	,266	,242	,229	1,097	,283
	Total Assets 2007	,000	,000	,344	1,913	,067
	Industry	4,158	1,290	,728	3,224	,003

a. Dependent Variable: ROE 2008

Regression 4

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1737,328	3	579,109	3,459	,031[a]
	Residual	4352,981	26	167,422		
	Total	6090,309	29			

a. Predictors: (Constant), Industry, Total Sales 2007, CSR 2007

b. Dependent Variable: ROE 2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-32,635	27,132		-1,203	,240
	CSR 2007	,274	,248	,236	1,105	,279
	Total Sales 2007	7,115E-5	,000	,295	1,584	,125
	Industry	4,094	1,338	,717	3,060	,005

a. Dependent Variable: ROE 2008

Regression 5

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3425,724	3	1141,908	5,029	,007[a]
	Residual	5903,910	26	227,073		
	Total	9329,633	29			

a. Predictors: (Constant), Industry, Total Assets 2007, CSR 2007

b. Dependent Variable: ROS 2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	24,476	31,266		,783	,441
	CSR 2007	-,359	,288	-,250	-1,248	,223
	Total Assets 2007	1,517E-5	,000	,038	,220	,828
	Industry	3,051	1,532	,432	1,992	,057

a. Dependent Variable: ROS 2008

Regression 6

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3414,762	3	1138,254	5,003	,007[a]
	Residual	5914,872	26	227,495		
	Total	9329,633	29			

a. Predictors: (Constant), Industry, Total Sales 2007, CSR 2007

b. Dependent Variable: ROS 2008

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	26,308	31,627		,832	,413
	CSR 2007	-,366	,289	-,255	-1,263	,218
	Total Sales 2007	-1,694E-7	,000	,000	-,003	,997
	Industry	2,917	1,560	,413	1,870	,073

a. Dependent Variable: ROS 2008

2008- 2009

The collected and applied data for the year 2008- 2009 are CSR scores of the sample for the year 2008 (starting point) which functions as the independent variable and financial performances such as ROA, ROE and ROS for the years 2009 that function as dependent variables. Besides, total assets and total sales both for the year 2008 representing the size of the sample as well as the industry are functioning as the control variables in the regression model. A formula for this relationship can be derived from the main formula:

Financial performance $_{2009}$ = *CSR performance* $_{2008}$ + *Size* $_{2008}$ + *Industry*

Applying the variables in the model, six regression equations are formulated as follows:

1. $ROA_{2009} = CSR\ score_{2008} + Total\ Assets_{2008} + Industry$
2. $ROA_{2009} = CSR\ score_{2008} + Total\ Sales_{2008} + Industry$
3. $ROE_{2009} = CSR\ score_{2008} + Total\ Assets_{2008} + Industry$
4. $ROE_{2009} = CSR\ score_{2008} + Total\ Sales_{2008} + Industry$
5. $ROS_{2009} = CSR\ score_{2008} + Total\ Assets_{2008} + Industry$
6. $ROS_{2009} = CSR\ score_{2008} + Total\ Sales_{2008} + Industry$

These regression equations with their concerning data have been tested in SPSS. The elaborate results from regression 1 to 6 are incorporated in the tables shown in the next page.

The tables show that regressions 1 to 6 have significant results.
The only ANOVA table that, presents a significant p-value of 0,098 at 10 percent level for the whole regression is the regression equation 5, and the rest has no significant effect.

$$ROS_{2009} = 3.159 - 0.090 * CSR\ score_{2008} + 1.861E\text{-}5 * Total\ Assets_{2008} + 2.109 * Industry$$

This outcome support that ROS2009 is dependent on the variables CSR performance of 2008, total assets of 2008 and industry together. The regression equation 5 can be rated by the values extracted from the Coefficient table as demonstrated in the next pages. However, the Coefficient tables show that the independent variables separately have no significant effect on ROA2009, ROE2009, and ROS2009.

Regression 5

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	967,277	3	322,426	2,324	,098[a]
	Residual	3606,471	26	138,710		
	Total	4573,748	29			

a. Predictors: (Constant), Industry, Total Assets 2008, CSR 2008

b. Dependent Variable: ROS 2009

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,159	24,353		,130	,898
	CSR 2008	-,090	,222	-,089	-,404	,689
	Total Assets 2008	1,861E-5	,000	,072	,372	,713
	Industry	2,109	1,184	,426	1,781	,087

a. Dependent Variable: ROS 2009

2009- 2010

The collected and exerted data for the year 2009- 2010 are CSR scores of the sample for the year 2009 (starting point) which functions as the independent variable and financial performances such as ROA, ROE and ROS for the years 2010 that function as dependent variables. Besides, total assets and total sales both for year 2009 representing the size of the sample as well as the industry are functioning as the control variables in the regression model. A formula for this relationship can be derived from the main formula:

$$Financial\ performance_{2010} = CSR\ performance_{2009} + Size_{2009} + Industry$$

Six regression equations are formulated by applying the variables in the model as follow:

1. ROA_{2010} = CSR $score_{2009}$ + Total $Assets_{2009}$ + Industry
2. ROA_{2010} = CSR $score_{2009}$ + Total $Sales_{2009}$ + Industry
3. ROE_{2010} = CSR $score_{2009}$ + Total $Assets_{2009}$ + Industry
4. ROE_{2010} = CSR $score_{2009}$ + Total $Sales_{2009}$ + Industry
5. ROS_{2010} = CSR $score_{2009}$ + Total $Assets_{2009}$ + Industry
6. ROS_{2010} = CSR $score_{2009}$ + Total $Sales_{2009}$ + Industry

These regression equations with their concerning data have been tested in SPSS. The detailed results from regression 1 to 6 are incorporated in the following pages. The tables show that regressions 1 to 6 have significant results.

The ANOVA tables show no statistically significant p-value for the whole regression is the regression equations of the variables on each other. These outcomes indicate that no evidence exists that support that CSR performance of 2009; total assets of 2009 and the industry together would have an effect on the financial performances for the year 2010. Additionally, the Coefficient tables show that the independent variables separately have also no significant effect on ROA2010, ROE2010, and ROS2010. The only variable responding to the financial performance is the industry with a significant p-value.

These multiple regressions for CSR performance as the starting point have been formulated due to the forms of hypotheses H4 and H6, which were stated in chapter four, and thereafter verifying or rejecting of these hypotheses is based on the results derived from these regressions. Hence, according to the signaled results, the hypothesis H4 ***"Corporate social responsibility reporting is associated with the financial performance"*** is rejected but instead the hypothesis H5 ***"Corporate social responsibility reporting is not necessarily associated with the financial performance"*** is accepted.

6.7 **Summary**

The sample has been selected out of a wider group due to availability of the data required and size of companies. The results of the content analysis have been commented in paragraph 6.3. These outcomes were obtained by evaluating annual and/ or CSR reports of the firms. The maximum point that a firm could score was 100 points. The average score for the years 2006 to 2010 are 81, 83, 85, 86 and 87respectively. Based on the scores and graphs derived from the content analysis, among Oil, Gas firms, Royal Dutch Shell, Esso, Galp Energia, Stats oil, Total, GDF Suez, ENI, and OMV AG are the forerunners of CSR performance for the years 2006 to 2010. For the same years, Boliden AB, Xstrata, and Anglo American are the top 3 firms of CSR performance.
Financial performance measurement indicators were Return On Assets (ROA), Return On Equity (ROE), and Return On Sales (ROS). Total assets, total sales, and industry were functioning as control variables in this research for the years 2006 to 2010. All data were derived from Worldscope and Thomson One Banker databases.

The relationship between CSR performance and financial performance was differentiated between two main areas.

First area that called the analysis of the sign of relationship concerns with the direction of the relationship, which is searching whether the two main variables would be in the same positive direction or the same negative direction. Consequently, the results are used to reject or accept the hypotheses H1, H2, and H3 stated in chapter four. The results indicate that these hypotheses should be rejected, which implies that a negative relationship exists between CSR performance measurement indicators and the financial performance measurement indicators. It implies that hypotheses H2 and H3 are rejected and instead the hypothesis H1***"A negative relationship exists between CSR performance and the financial performance of the firms."*** is accepted.
This implies that CSR performance measurement indicator and the financial measurement indicators of the Oil, Gas and Mining firms within the EU for the years 2006 to 2010 are following opposite directions and not positively related.

The second area that this research evaluates is the analysis of the relationship, in which two main variables concerning the Oil, Gas and Mining firms quoted in European stock exchanges are analyzed in from 2006 to 2010. To conduct this model of the analysis, a formula was developed concerning the hypotheses H 4 and H5. From this formula, 24 regression equations were derived, which were concerned with analyzing the fact whether CSR performance measurement indicators as independent variables would have an effect on financial performance measurement variables in the period of 2006-7, 2007-8, 2008-9 and 2009-10. With respect to CSR as the starting point, this study has formulated the main equation as "$FP_t = CSRP_{t-1} + Size_{t-1} + Industry$" where; FP is financial performance (ROA, ROE, ROS), CSRP is CSR performance (CSR scores),

Size is the assets and/or sales, t-1 equals to the starting point or initial year, and t equals to the next year. Subsequently, various regression equations are derived from the main formula, and by means of SPSS these results are evaluated. The outcomes derived from ANOVA analysis and Coefficient analysis indicate that hypotheses H4 is rejected, instead H5 *"**Corporate social responsibility reporting is not necessarily associated with the financial performance***
" is accepted.

The conclusion will be provided in the next chapter.

7 Conclusion

7.1 **Introduction**

This chapter concludes the outcomes from the empirical research presented in chapter 6. Paragraph 7.2 contains the conclusion and compares the results out of this research with the previous studies presented in chapter three. In paragraph 7.3 the limitations, which this research was encountered, will be introduced. To finalize this chapter, suggestions regarding future researches are commented in paragraph 7.4.

7.2 **Conclusion**

Not many studies have been conducted concerning the relationship between CSR performance and financial performance especially among Oil, Gas and Mining companies within the European Union (hereafter the EU). However, since two past years the trend has been increasing as the trend of providing CSR reports by different large businesses has. In addition, this study is concerned with the research about 30 Oil, Gas and Mining companies all quoted on the stock exchanges in their concerning countries, regarding their CSR reports and financial data within the EU for the years 2006 to 2010.

As signaled in previous chapters, CSR reporting is a qualitative subject, which needs to be evaluated by a scoring model. To calculate this qualitative data, a content analysis regarding CSR and/ or annual reports of the sample firms has been conducted for the years 2006 to 2010. Consequently, these content and textual analyses have formed a source of data for CSR performance. In contrast to CSR performance, financial performance is a quantitative measure. To develop a framework for calculating financial performance, Return on assets (ROA), Return on equity (ROE), and Return on sales (ROS) have been considered as measurement indicators for financial performance throughout this study. Besides, to outline the control variables, size of the firms and industry have been incorporated into the research. Total assets and total sales have been considered as the measures for size of the firms. The industry has been measured by using of the SIC codes, which is a unique number for each industry and represents the Standard Industrial Classification system. The required data for financial performance, size and industry of the firms were derived from the financial databases Thomson One Banker and Worldscope.

The relationship between CSR performance and financial performance has been analyzed in two areas. The first area concerns with the sign of relationship, which in particular focuses on the direction or the strength of the two performances. The sign of relationship has been measured by Pearson Correlation analysis in SPSS. The second area concerns with the analysis of the statistical association between CSR- and financial performance, which explains whether the two variables are associated with each other or not. This statistical association is measured by multiple regression analysis in SPSS.
Considering the introduction signaled before, the results of both approaches will be expounded further in this chapter as well as the conclusion derived from the empirical research will be finalized.
This research examined the dependent and independent variables, namely CSR performance and financial performance, for five consecutive years. It implies that the initial year namely 2006 and the following year 2007 have been regarded as a pair of years. The same method

was applied for 2007- 2008, 2008- 2009 and 2009- 2010, which implies that the second year of the first pair was considered as the initial year for the next pair of years and so forth.

Conclusion concerning the sign of relationship

The hypotheses H1, H2, and H3 formulated in chapter four were set to be tested and answer whether the direction and the strength of the relationship between the two variables are positive, negative, or neutral. These hypotheses were regarded as the sign of relationship. As noted before, the sign of relationship evaluated by a Pearson Correlation analysis by using significance levels of 5 and 10 percent. By adding CSR scores of the initial and following years, as well as ROA, ROE and ROS of both initial and following years in the Pearson model, five correlation analyses were calculated. The extracted results show a negative correlation between the variables, which statistically implies no statistical significant correlation between the CSR performance measurement indicators and the financial performance indicators for the years 2006 to 2010 at 5 or 10 percent level of significance. It implies that no significant positive or neutral relationship exists between the approached variables. Hence, the hypothesis H1***"A negative relationship exists between CSR performance and the financial performance of the firms"*** will be accepted.

In the paragraph *"Theoretical explanation regarding the outcomes"*, the outcomes concerning this part of the research will be explained by using the previously stated theoretical backgrounds. Besides, the findings of this research support the findings of the prior researches will be commented in the same paragraph. These findings create an added value regarding the studies in the European Union's level concerning the Oil, Gas and Mining sectors.

Conclusion concerning the statistical association

The hypotheses H4 and H5 signaled in chapter four have been formulated to answer questions regarding the statistical association between CSR activities and financial performance in the Oil, Gas, and Mining with the EU for the duration of 5 years. The analysis of the statistical association between CSR performance and financial performance was only concerned with CSR performance as the starting point. A multiple regression analysis has been applied for analyzing the relation between CSR performance and financial performance. There have been 24 regression equations formulated for a period from 2006 to 2010. The years were considered as pairs, which imply that they were evaluated as the pair of years such as 2006-7, 2007-8, 2008-9 and 2009-10, and each pair received six regression equations. The regression equations have been changing by varying their measurement of control variables, size that are total assets and total sales. In addition, industry has been added as the second control variable and has been qualified by the SIC codes.

The six regression equations regarding SCR performance as the starting point have shown no significant evidence that; CSR performance will have a positive effect on the financial performance, to show whether they can be associated with each other. Consequently, the hypothesis H4 was rejected, and as an alternative, the hypothesis H5 ***"An increase in the corporate social responsibility of a firm is not necessarily associated with the financial performance"*** was accepted.

In the next paragraph, the outcomes regarding the statistical association between the two variables will be explained by using previously stated theoretical backgrounds. In addition, the findings of several previous researches will be commented, which will support the outcomes of this research. In conformity with previous studies, these outcomes can also create an added value to the Oil, Gas and Mining sectors in the European Union's level.

Explanation of the outcomes

Explaining the sign of relationship and the negative result and concerning hypothesis can be best understood by agency theory, stakeholder theory, legitimacy theory and several other supplementary theories derived from them.

A new view of the agency theory that has strong ties with the legitimacy- and stakeholder theory extends the principal-agent relationship to a wider range of principals, namely stakeholders rather than only the shareholders. In this regard, the firms are considered as an agent and society as the principal, by which firms are forced to act in a socially responsible way. In this regard, local community and society, employees, customers and public, and states are drivers for firms to improve their relation with those powerful groups in the society in which the firms are operating. Consequently, companies need to implement strategies and policies such as CSR to satisfy and meet their stakeholders' need (Mantysaari, Petri, 2008). Exactly similar to the shareholders, these stakeholders may have different demands as they grant social legitimacy to the firms. Consequently, firms must address these demands; otherwise, they would meet negative consequences from non-shareholder groups. This can trigger a downturn in the value of shares, through others' boycotts, lawsuits, and protests (Ruf et al, 2001, p. 134). In addition, as the assumptions of legitimacy theory describes that; "*a business is legitimated by the society. The society will not grant legitimacy to the business if it is considered as not doing the performance that the society expects from it*" (Woodward et al, 2001, p. 387). It seconds the idea of Balabanis, who stated; a firm needs to be socially responsible because of an unwritten contractual obligation with the society where it operates (Balabanis et al, 1998, p. 30).

There are also several different supplementary economic theories by which the results of the analysis of the relation, as well as the sign of relationship, can be explained. In this regard, first theory is Managerial opportunism theory, which is a derivation of the Agency theory. This theory entails opportunistic behavior of the managers, who strive towards their own interests at the expense of the stakeholders' interests. According to this theory, when the financial performance is showing weak symptoms, in order to distract stakeholders' attention, the managers tend to counterbalance this problem with an increase in the firm's CSR expenditure. Besides, there can be a negative relationship between CSR- and financial performance, when financial performance is positively evaluated by the stakeholders. It implies that a robust financial performance causes that managers will 'cash in' by decreasing the firms' CSR expenditure at their own interests (Preston and O'Bannon, 1997, p.424). Additionally, the second theory is Trade-off theory, which indicates that incorporating CSR activities involves additional financial costs. According to Aupperle et al (1985, p.450), CSR activities may cause a decrease in the capital abilities and other resources of CSR firms. In comparison with non-CSR firms, this will reduce the competitive ability of CSR firms. Consequently, additional CSR activities will deteriorate the financial performance (Preston and O'Bannon, 1997, P. 421). Trade-off theory was empirically proved by the study of Vance. He detected that firms with strong social and environmental activities will relatively have lower stock prices than the market's average stock price (1975, p. 21). Hence, the relationship between CSR- and financial performance is not clear.

The outcomes of Mcguire, Sundgren and Schneeweis' study (1988), support the results of the current research. Their findings indicate that a negative correlation exists between CSR performance and financial measures. They concluded that a negative association implied that having implicit contracts with stakeholders would yield to lower debt. It illustrates that

extra risks, for example, of a lawsuit or fines will be imposed to firms due to the lack of incorporating CSR policies, which may reduce firms' strategic options. (Mcguire, Sundgren and Schneeweis 1988, p. 869).
In addition, Part of Balabanis's study (1998) that discovered a significant negative correlation between CSR activities and the financial performance for the post-assessment period, is consistent with the result of this research. They argued that a firm needs to be socially responsible because of an unwritten contractual obligation with the society where it operates (Balabanis et al, 1998, p. 30).
The outcomes of the study of Nelling and Webb (2008) indicate that past financial performance is significant in explaining the variability of CSR, and conversely, CSR is significant in variability of financial performance. Ultimately they concluded that no evidence was observed that a relationship between CSR and financial performance exists. Their final conclusion supports the final conclusion of this research.

Based on the answers concerning the five formulated hypotheses in relation with the research question; "***Does a relationship exist between CSR performance and financial performance in Oil, Gas and Mining firms within the EU?"***
The conclusion is that based on the findings only can confirm that; "***A negative relationship exists between corporate social responsibility (CSR) performance and financial performance in the European Oil, Gas and Mining firms."***
Comparing the results of this thesis with the results of the researches by Mcguire, Sundgren and Schneeweis, Part of Balabanis's study, and the final conclusion of Nelling and Webb, the scientific advantage of this thesis is that at least is proved that a negative relation exists between CSR performance and the financial performance. Besides, there is not necessarily an increase in the corporate social responsibility of a firm associated with an increase in the financial performance.

7.3 **Limitations**

Additionally, in this research several remarks should be considered. First remark indicates that measuring CSR performance is a subjective method and remains the same, although a consistent methodology has been used to protect the reliability of this content analysis. Second remark is the fact that the sample size of this research is limited. The third remark implies that the global economic crisis can potentially be the reason behind the volatility of the financial performance measurement indicators.

7.4 **Suggestions and future researches**

Further researches should consider the signaled remarks; thus their results might vary and be significantly positive by increasing the sample size, or conducting their research in different periods.
This may enhance the reliability and validity of the research. Possibly, dividing CSR elements into different variables or adding new variable such as the amount of labors or productivity of the firm would improve the outcomes. Besides, whether or not taking the industry as a control variable may have an impact on the results of the future researches. Finally, a case study can be the most appropriate choice for analyzing the actual sign of relationship and the statistical association between CSR- and the financial performance. The reason is that a case study can find the actual causes for the development of CSR- and financial performance within the evaluated sample.

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Appendix 1- table summary of prior researches

Year	Author (s)	Object of study	Sample	Methodology	Outcome (S)
1984	Cochran and wood	With using new technique, methodology, and control group the reexamination of the relation between corporate social responsibility and the financial performance.	61 firms in 42 industries in two periods 1970- 1974 and 1975 to 1979 from the Compustat tape.	Correlation matrices and regression model.	Firms with older assets have lower CSR rating and management of older firms is not flexible in adopting CSR policies.
1988	Mcguire, Sundgren and Schneeweis	The relationships between perceptions of firms' corporate social responsibility and measures of their financial performance.	98 firms for the period 1983- 1985. Accounting and Market- based data for financial performance from Compustat data base	Regression model and co relational analysis.	There is insignificant correlation between Market- based measures and CSR and positive association between accounting-based measures and CSR.
1997	Waddock and Graves	The empirical linkages between financial and social performance.	A sample of 469 firms with SIC code and financial data from Compustat tape in Us were observed during a period from 1989 to 1990.	Regression analysis. Correlation matrices.	Supports slack resources and good management theory. CSR and financial performance are positively related.
1988	Balabanis et al.	Link between corporate social responsibility and financial performance in the top British companies.	56 UK firms covered 20 industries. For periods such as pre-assessment 1984- 1987, concurrent 1988- 1989 and post-assessment 1990-1994 form Data-stream-online database.	Correlation, T-test, ANOVA, and regression analyses.	A combination of CSR performance and disclosure has positive effects on firm's overall profitability. Firms with good and stable financial performance tend to bring CSR in the agenda.
2001	Ruf et al.	An Empirical Investigation of the Relationship Between Change in Corporate Social Performance and Financial Performance: A Stakeholder Theory Perspective	469 firms from the Standard and Poors were analyzed for period from1991to 1995. Financial data were obtained from Compustat database.	Based on methodology developed by Ruf 1998. Analytical Hierarchy Process.	A positive association observed between CSR and return on equity and growth in sales.
2002	Simpson and Kohers	The Link Between Corporate Social and Financial Performance: Evidence from the Banking Industry	A sample of 385 banks has analyzed for the period 1993-1994 from *FDIC* Statistics on Banking and Employment and Earnings.	Bank- specific Regression models	The sign of regression shows that banks with high social performance have lower loan loss and obtain better financial performance.
2004	Tsoutsoura	The sign of the relationship between corporate social responsibility and financial performance.	422 companies have been studied for the period 1996- 2000 from Compustat database	Correlation matrices and regression model.	The results indicate that key variables of CSR and financial performance are significant and positively related.
2008	Nelling and Webb	The causal relation between corporate social responsibility (CSR) and financial performance.	The Sample extends from 1993 to 2000 and includes data on more than 600 U.S. firms from Compustat database.	A correlation analysis. Granger causality model and Tobit regression.	The relationship between CSR and lagged financial performance is positive and significant.