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Financial Performance in the Consumer Discretionary
Sector“

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List of Abbreviations

CFP	corporate financial performance
CSP	corporate social performance
CSR	corporate social responsibility
GICS	Global Industry Classification Standard
e.g.	for example
EU	European Union
ESG	environmental, social and governance
FP	financial performance
FV	firm value
neg.	negative
NGO	non-governmental organization
pos.	positive
R&D	research and development
ROA	return on assets
ROE	return on equity
ROS	return on sales
US	United States

Keywords

Corporate Social Responsibility (CSR), Financial Performance, Consumer Discretionary Sector

1. Introduction

1.1. Motivation

The purpose of this study is to find out whether Corporate Social Responsibility (CSR) has a positive impact on the financial performance of firms. The shareholder theory implies that the essential responsibility of managers is to maximize profits and other interests of shareholders (McGuire et al., 1988). CSR seems to contradict this theory, since it causes additional costs and does not contribute to the financial result of companies at the first sight. However, when we look at the issue more closely, it becomes clear that CSR engagement provides a lot of advantages, not only for the society, but also for the company. These advantages can appear in various forms, such as increased reputation, improvement of customer and investor relations, employee motivation, risk reduction, or tax benefits (Sprinkle and Maines, 2010).

Some researchers suggest that CSR can be treated as any other business investment, and that CSR projects should be carefully chosen and managed, based on a cost-benefit analysis (McWilliams and Siegel, 2001; Sprinkle and Maines, 2010; Kotler et al., 2012). However, measuring the costs and benefits of CSR activities is often very difficult. For this reason, the impact of the CSR engagement on the financial performance of companies remains unclear (Kotler et al., 2012).

Possibly, CSR actions do not have the same effect on the financial result in every firm (Husted and Allen, 2007). Therefore, this analysis focuses only on a specific group of companies, in which CSR initiatives seem to be an important part of their business strategy, and could affect the financial performance in a positive way. Companies that operate in the consumer discretionary sector need to maintain a good customer relationship and often have to survive in a very competitive environment (Blokhin, 2018). Many consumer firms consider CSR engagement as an effective way to keep a good reputation among customers and to differentiate their products from the competition (McWilliams and Siegel, 2001).

Moreover, sustainable products and services are increasingly gaining importance in the society, and the willingness to buy socially responsible goods also kept growing during the last 25 years. In 2017, 89% of the US-consumers indicated that they would change the brand they use for one that is comparable in quality and price, but supports a social benefit, whereas only 66% of the respondents were ready to do so in 1993. Moreover, 55% of the respondents said they have purchased a product, because it supported a social or environmental cause in 2017, whereas only 20% indicated that they have bought a responsible product in a study from 1993 (Cone Communications, 2017).

1.2. Problem Description

The objective of this thesis is to examine the effect of CSR engagement on the financial performance in the consumer discretionary sector. Six hypotheses and six regression models that test the effect of CSR on financial return and firm value have been developed. The first three regression models examine the effect of CSR on financial return indicators, measured at first as return on assets (ROA), then as return on equity (ROE), and finally as return on sales (ROS). The other three models test the impact of firstly, CSR in general, secondly, environmental engagement, and thirdly, social engagement on firm value, which is measured as Tobin's Q. The financial return indicators (ROA, ROE, and ROS) reflect mostly the short-term firm performance, and on the contrary, Tobin's Q measures mainly the long-term financial result (Kang et al., 2010). The amount of CSR engagement was assessed using the Thomson Reuters ESG (environmental, social and governance) rating, which evaluates the level of the environmental, the social, and the governance commitment of companies all around the world (Thomson Reuters, 2018).

The data sample includes 80 consumer discretionary companies that formed a part of the S&P 500 index as of December 31, 2017. The data was collected for a period of 8 years (2009 to 2016 for the independent variables, and 2010 to 2017 for the dependent variables).

1.3. Structure of the Thesis

Chapter 2. contains the theoretical part of this thesis. It starts with a brief description of the historical development of CSR in companies and in the academic literature (2.1.). Chapter 2.2. explains the term CSR, and chapter 2.3. characterizes the components of CSR. Section 2.4. summarizes the costs and the benefits of responsible activities for firms, and section 2.5. contains a description of the consumer discretionary sector and the importance of CSR in this sector. Finally, chapter 2.6. concerns the relationship between CSR and financial performance. This part presents the possible measurement methods of financial performance (2.6.1.) and of CSR (2.6.2.), and also a literature review of previous research on the relationship between CSR and financial performance (2.6.3.).

Section 3. contains a detailed explanation of the research design used in this thesis. Chapter 3.1. presents the hypotheses that are tested in this thesis. The data and their origin are explained in the chapter 3.2. Section 3.2.1. includes a description of the data sample and the time period, chapter 3.2.2. contains the CSR data, and chapter 3.2.3. reveals the details of the financial data. The next chapter 3.3. includes a description of the dependent (3.3.1.) and the independent (3.3.2.) variables used in the models. Finally, section 3.4. describes, firstly, the regression models that are used to measure the effect of CSR activities on financial return (3.4.1.) and on firm value (3.4.2.), and secondly, a test for multicollinearity (3.4.3.), heteroskedasticity (3.4.4.), and a robustness test (3.4.5.). These three tests should ensure that the regression models are unbiased and correctly specified.

Chapter 4. presents the results of this research. Firstly, a descriptive statistics table (4.1.) depicts the basic characteristics of the variables employed in the models, and a correlation table (4.2.) shows the relationship among these variables. Next, chapter 4.3. contains the detailed results of the regression models and the robustness tests. Firstly, the effect of CSR on financial return is presented (4.3.1.), secondly, the impact of CSR on firm value is described (4.3.2.), and thirdly, the results of six robustness tests are discussed (4.3.3.).

Lastly, chapter 5. summarizes the objectives and results of this thesis, and also contains a discussion with possible explanations for the findings.

2. Corporate Social Responsibility

2.1. History of CSR

CSR, as we know it today, started to appear in the society in the early 1950s. Before that, CSR was a relatively scarce phenomenon, and it was often difficult to distinguish between companies which truly had altruistic intentions, and companies which supported the socially responsible behavior only seemingly, but actually had other objectives (Carroll, 2008). Figure 1. summarizes the history of CSR since the 1950s until today:

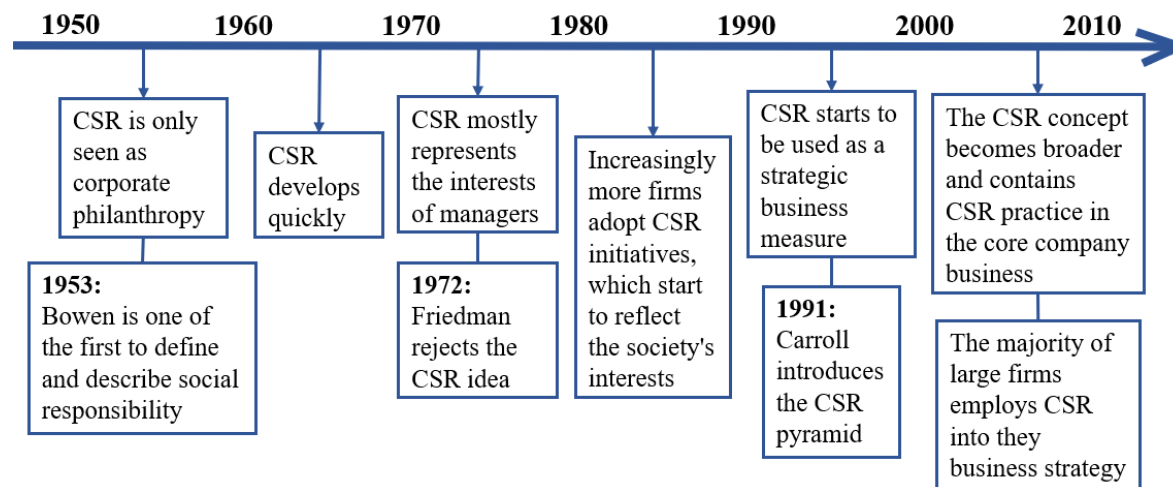


Figure 1.: Timeline of the CSR Development (based on Carroll, 2008; Moura-Leite and Padgett, 2011; Loew and Clausen, 2010)

The American economist Howard R. Bowen was one of the first to discuss social responsibility and ethics in firms (Carroll, 2008). Bowen (1953) argued in his book “Social Responsibilities of the Businessman”, that companies had an immense impact not only on the employees and the stakeholders, but also on the whole society. Bowen (1953) was also

one of the first to define CSR: “It refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society” (p. 6). However, CSR was not yet associated with corporate benefits in the 1950s, but was usually only seen as a philanthropic act (Moura-Leite and Padgett, 2011). The CSR literature started to develop quickly in the 1960s. More and more researchers addressed the topic and tried to define and explain CSR (Carroll, 2008). During the next two decades, research on CSR became deeper, and businesses increasingly started to get interested in CSR, too. Yet, the growing attention also brought some opinions with a negative attitude towards CSR. For example, Friedman (1970) believed that the sole objective of companies was to make profits, and that the only people firms had to behave responsibly towards, were the shareholders. This opinion also affected other researchers and companies, which began to think about how to incorporate CSR to businesses without acting against the profit-making purpose of firms (Moura-Leite and Padgett, 2011). However, because companies kept promoting conventional management, the first CSR attempts were largely associated with manager’s personal advantage. This approach only started to change in the 1980s and the 1990s (Carroll, 2008). Carroll (1991) argued, that businesses have a deeper purpose than profit-making and developed a four-stage CSR pyramid that depicted the responsibilities of businesses. Figure 2. presents the CSR pyramid and the four types of firms’ responsibilities.

According to Carrol (1991), the basic responsibility of firms is the Economic Responsibility, which represents profitability. The second component of the pyramid is the Legal Responsibility. Companies are expected to obey the law and regulations. The next two pyramid layers symbolize responsibilities that go beyond the requirements of law. Ethical Responsibilities represent the moral and the ethical norms expected from the society, such as a good treatment of employees. Finally, the last layer of the pyramid contains Philanthropic Responsibilities. This component comprises voluntary activities with the aim of helping and improving the community, that go even beyond the expectations of the society. An example for a Philanthropic Responsibility would be charitable contributions, or social programs that improve the quality of life (Carroll, 1991). CSR was mostly understood as a civic engagement, focusing on donations, volunteering, and the support of the local

communities until late 1990s. Finally, the 2000s brought a CSR concept that started to spread to a broader definition, which also encompasses environmental and social responsibility in the core company business (Loew and Clausen, 2010).

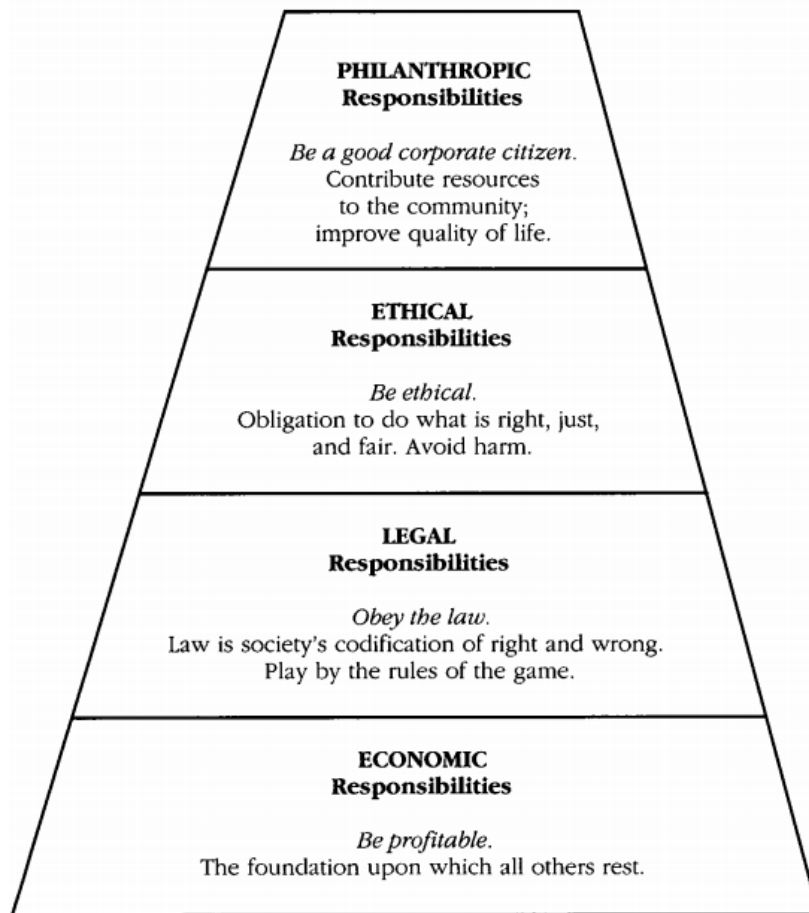


Figure 2.: The CSR Pyramid (Carroll, 1991, p. 42)

Nowadays, most companies engage in “activities beyond the interests of the firm” (McWilliams and Siegel, 2001, p. 117) willingly, because the general approach to CSR has changed, and firms realize the “hidden” benefits of CSR very well. CSR is not a rare phenomenon anymore, but has become increasingly important to all kind of businesses. Even though a few companies invest in CSR in order to do something good, most of them also have other incentives, for example to attract investors and skilled employees, or to distinguish themselves from the competitors (McWilliams and Siegel, 2001).

2.2. Definition of CSR

Many academics tried to explain CSR throughout the last 65 years, but there is still no universally approved definition of CSR (Carroll, 1999). The definition of McWilliams and Siegel (2001) will be used in this thesis, as it characterizes CSR in a simple but effective way as “actions that appear to further some social good, beyond the interests of the firm and that which is required by law” (p. 117). Thus, CSR engagement is the company’s commitment to devote corporate resources to social welfare. Social welfare can be supported in many areas, such as health and security matters, education, working conditions, environmental support, animal protection, or the promotion of economic development. The support can be provided by not only financial contributions, but also various other means like product donations, sponsoring, loans, employee volunteering, advertisement, or the sharing of distribution channels (Kotler et al., 2012). It is important to note that only voluntary actions, which are not required by the law, can be considered as CSR activities. For example, if a firm protects its employees against discrimination based on, for instance, race or religion, it does not mean the firm behaves responsibly in a CSR context (McWilliams and Siegel, 2001). Furthermore, CSR activities should not merely mirror the general ethical and moral habits that might go beyond the law, but are still required from the society. Instead, CSR activities should contain projects that exceed the public expectations (Kotler et al., 2012).

2.3. Different Categories of CSR

CSR is classified into two main categories in this thesis: The Environmental and the Social Responsibility¹. The Figure 3. depicts the two examined CSR types.

The Environmental Responsibility reflects the ability of a company to reduce the negative impact on the environment, arising from the production and the distribution process, such as the reduction of resources and waste, the usage of ecologically friendly technologies, and the

¹ CSR is measured as the average of the social and the environmental score of the Thomson Reuters ESG rating (see chapter 3.2.2. for further information).

cooperation with environmentally responsible suppliers (Vives, 2006). The Social Responsibility reflects the company's attitude towards its employees, customers, and the society. A voluntary contribution to, for example, the quality and the safety of working conditions, development opportunities for employees, diversity, public health and other community matters, or product responsibility are included in this CSR category. (Thomson Reuters, 2018).

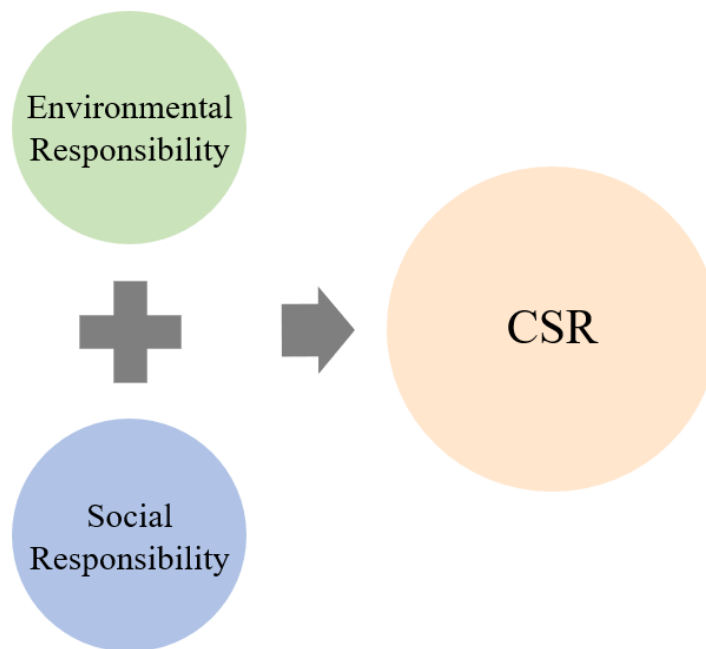


Figure 3.: Examined CSR Types (based on Thomson Reuters, 2018)

However, the categorization of CSR in only two types, the social and the environmental responsibility, is very broad and does not characterize the single CSR aspects very well. The classification of CSR from Kotler et al. (2012) covers many possible features of the CSR activities and describes various kinds of CSR projects that can be supported by companies. They organized CSR projects into two groups, with three categories in each group. The first group consists of CSR activities with a direct customer engagement, and contains three CSR types: Cause Promotions, Cause-related Marketing, and Social Marketing. The second group includes three categories with CSR activities that do not require a direct customer involvement in CSR projects, but rather support the values and the goals of the company: Corporate Philanthropy, Community Volunteering, and Socially Responsible Business

Practices. All these six CSR types can support both, an environmental or a social responsibility, and could therefore belong to both of the main CSR categories that are examined in this thesis.

Figure 4. depicts the six different categories of CSR that were described by Kotler et al. (2012):

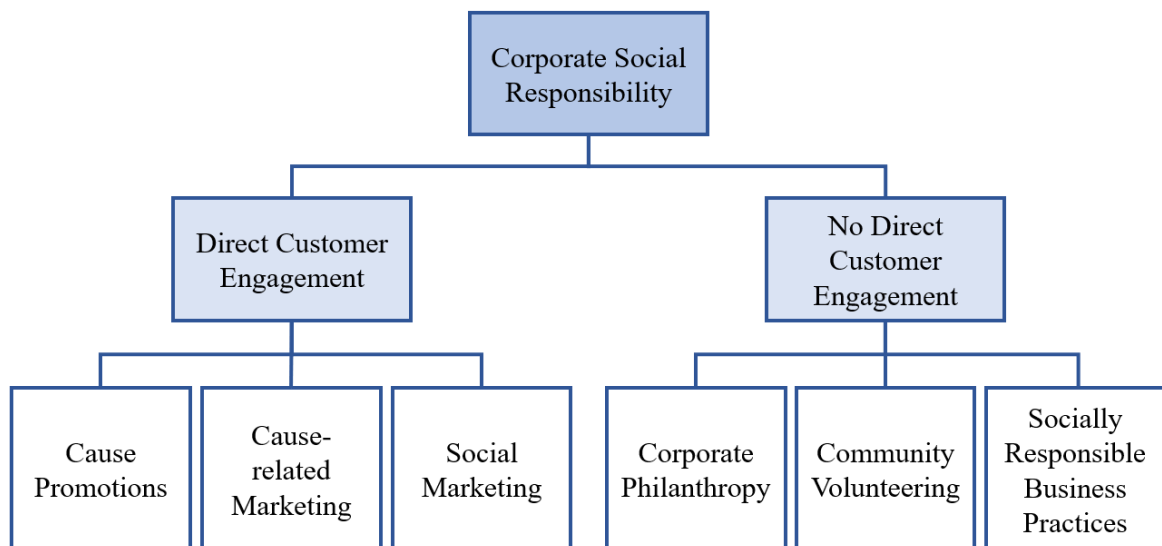


Figure 4.: CSR Categories Based on Customer Engagement (Kotler et al., 2012)

CSR types with a direct customer involvement contain CSR activities that motivate customers to buy products or services. This method should directly improve the revenue of the company, since CSR projects are usually a convenient way to do something good for many consumers. Cause Promotion is a CSR activity that increases the awareness about a particular cause which benefits the society with the aim to encourage, for example, volunteering or fundraising. Companies often cooperate with non-profit organizations whose main business is to deal with the specific cause (Kotler et al., 2012). A good example of a Cause Promotion is the project of the department store Macy's, that supported reading and writing skills of children. Customers could donate money to the charitable organization "Reading is Fundamental", and received a purchase discount for every contribution (The Children's Book Council, 2012). The second CSR type, Cause-Related Marketing, connects

donations with a purchase or usage of products. Varadarajan and Menon (1988) define Cause-Related Marketing as a “process of formulating and implementing marketing activities that are characterized by an offer from the firm to contribute a specified amount to a designated cause when customers engage in revenue-providing exchanges that satisfy organizational and individual objectives” (p. 60). One of the first companies that used Cause-Related Marketing was American Express. The company contributed to the restoration of the Liberty Statue every time a customer used or ordered a credit card (Gottlieb, 1986). The third and last type of CSR with a direct customer involvement is Social Marketing. Social Marketing is “the adaptation of commercial marketing technologies to programs designed to influence the voluntary behavior of target audiences to improve their personal welfare and that of the society of which they are a part” (Andreasen, 1994, p. 110). For instance, the company Best Buy initiated an environmental marketing action that enabled their customers to recycle old electronic devices in the Best Buy stores (Moore, 2017).

The next three CSR types do not directly involve the customer in responsible activities, but support the core values of companies and improve the reputation among the buyers. Many people prefer products from sustainable firms, even if they do not contribute to a cause personally. Firstly, Corporate Philanthropy represents a firsthand support of some social issue or cause by a donation of money, products, or services (Kotler et al., 2012). For example, Pfizer donated drugs and financed a project that should have helped to destroy trachoma, an eye disease (Pfizer, 2018). The next CSR type, Community Volunteering, is an initiative that encourages employees or other business partners to volunteer in social projects and non-profit organizations (Kotler et al., 2012). For instance, the company FedEx offered a paid leave of absence to employees who would conduct trainings for children on safety in road traffic (Safe Kids Worldwide, 2019). Finally, the last type of CSR activity are the Socially Responsible Business Practices. This CSR type is characterized by discretionary² manufacturing procedures, internal policy, and other business practices that support the environment or wellbeing of the society and other social matters (Kotler et al., 2012). A good example for a Socially Responsible Business Practice is an effective commuting system that

² Discretionary procedures are such procedures that are not required by law or ethical principles (Kotler et al., 2012).

Microsoft developed for its employees. The project did not only favor the environment but also helped the people to reduce their travel time to work (Microsoft, 2007).

2.4. Why Be Socially Responsible? – Costs and Benefits of CSR

There are many reasons why firms undertake CSR projects. Some CSR activities might be carried out with unselfish intentions, simply to do something good, or to give the society something back. However, most socially responsible deeds are also driven by other intentions than by pure altruism. The highest priority of companies is still profitability, so management should consider all aspects of CSR activities carefully (Sprinkle and Maines, 2010). McWilliams and Siegel (2001) suggest, that CSR could be seen as a type of investment that later provides benefits for the firm. Thus, a company can treat CSR activities as other business projects, and decide whether to undertake a CSR project after comparing its costs and benefits.

In order to measure the costs of CSR, companies have to firstly identify all tasks related to a specific CSR activity, but also all projects which could not have been realized because of the CSR activity. Many of the CSR costs are relatively easily measurable in monetary values, for instance, financial contributions or donations of products. However, costs can also emerge from decreased productivity of employees, if they spend time on CSR projects. These costs cannot be assessed so easily, but are usually significantly lower than the costs of financial contributions. For example, KPMG employees engage in voluntary projects during a low-workload season, when the firm does not have sufficient business projects to occupy all staff (Sprinkle and Maines, 2010). In rare occasions, companies also have to consider a negative effect of CSR on the sales as CSR costs. For instance, some supermarkets directly ask customers to donate money, which can be perceived as bothersome by some buyers, who then decide to shop somewhere else (Felten, 2010).

Whereas it is often relatively simple to measure the costs of CSR activities, assessing the value of their benefits might be much more problematic. The difficulty lies not only in the

measurement, but also in the identification of the particular benefits (Sprinkle and Maines, 2010). Loew and Clausen (2010) summarized several studies from the years 2003 to 2009 and identified the following possible competitive advantages of CSR:

- Cost-effectiveness (energy and material effectiveness);
- risk reduction;
- building and improving reputation;
- motivation of employees;
- attraction of talents;
- promoting of innovations;
- improvement of customer relations;
- development of new businesses and products, or penetration of new markets; and
- improvement of investor relations.

Cost-effectiveness mostly results from environmental measures (Loew and Clausen, 2010). Sprinkle and Maines (2010) indicate an example of the multinational retail company Wal-Mart, that managed to reduce the packaging on some products. In this manner, Wal-Mart acted not only environmentally friendly by saving tons of materials, but also decreased the transportation costs by \$3.5 million.

CSR can be also used as a risk management tool. For instance, CSR activities might decrease the occurrence of undesired lawsuits, fines, or reputational damage (Sprinkle and Maines, 2010). The US-company Mattel had to withdraw almost one million toys from the market because their Chinese supplier used lead paint in the production. For Mattel, this scandal resulted in a great reputational damage, numerous consumer lawsuits, millions of Dollars in compensation payments, and an additional fine of \$2.3 Million (CBS News, 2009). For that reason, properly verifying suppliers should also be an important part of a sustainable business strategy.

CSR is also a valuable tool for reputation strengthening. A CSR strategy can serve as product promotion, or even substitute expensive advertising. For example, the cosmetics company The Body Shop that is known for its sustainable production of cosmetics and fair prices has

created so much publicity around its responsible business strategy, that it could completely abandon all other promotional activities. The company did not only support the society and the environment by a sustainable manufacturing process, but also saved a considerable amount of capital since it did not need to invest in additional advertising (Kotler et al., 2012). Moreover, CSR also serves as a promotion of quality and honesty. Consumers tend to associate companies that support CSR initiatives with higher reliability, and therefore believe, that the quality of their goods and services is better than in similar companies that do not behave sustainably (McWilliams and Siegel, 2001).

Both, motivation of current employees and attraction of future talents are largely driven by safe working conditions and the wellbeing of employees. Workers appreciate professional education and training, health support, fitness centers, but also an external engagement in sustainable activities of their employer. For example, several job applicants at the company Target have claimed they wanted to work for the firm because of Target's activities in community matters (Sprinkle and Maines, 2010).

Next, CSR might strengthen the relationship with consumers and investors. Many consumers are willing to support sustainability and good causes. In this way, companies can sell their products for premium prices and attract new customers. For example, a study from Penn Schoen Berland (2010) showed, that 70% of the US-consumers are ready to pay more for products that support a cause. This strategy can be also applied to investors and creditors. Many investors prefer to contribute money to sustainable companies, and also creditors are more likely to lend capital to socially responsible firms because they tend to have a lower risk (Sprinkle and Maines, 2010).

Implementation of CSR measures can also lead to new ideas, innovations and business lines. Firms focus on developing more sustainable products, services, and manufacturing processes, or develop new markets for, for example, renewable energy or senior-focused products (Loew and Clausen, 2010). Undoubtedly, innovations and new business lines provide a great opportunity for companies and entrepreneurs to attract new customers and to improve firm performance.

Finally, it is important to note that many CSR projects come with tax benefits and other subsidies. Most of the costs incurred by CSR activities are tax deductible (e.g., product donations or contributions to charity), and what is more, firms that support CSR projects often receive other subsidies, too. For example, companies can obtain tax credits for working with sustainable construction materials (Sprinkle and Maines, 2010).

2.5. CSR in the Consumer Discretionary Sector

This thesis deals with the relationship between CSR and the financial performance in firms that operate in the consumer discretionary sector. Companies that operate in this sector have to carefully consider their strategies to keep a good customer relationship. Consumer firms have a good motivation to behave responsibly, to support the attraction of buyers, and to gain a competitive advantage (Kotler et al., 2012).

The consumer discretionary sector contains “goods and services that are considered non-essential by consumers, but desirable if their available income is sufficient to purchase them” (Investopedia, 2018a). The sector consists of the following industries:

- Automobiles & components;
- consumer durables & apparel;
- consumer services;
- media; and
- retailing (MSCI, 2018).

The automobiles & components industry contains car and motorcycle producers; manufacturers of car components; and tires and rubber producers. The consumer durables & apparel industry includes producers of consumer electronics, such as televisions, audio appliances, digital cameras, or game consoles; furniture, home furnishings, and prefabricated houses; electric household equipment; durable household products, such as kitchenware and other household specialities; leisure products, including sports equipment and toys; apparel and accessories; footwear; and other textiles. The consumer services industry contains

owners and operators of casinos and gaming facilities; hotels, resorts, travel agencies and cruise ships; leisure facilities, including sport and fitness centers, stadiums, and amusement parks; restaurants and catering services; educational services, such as private universities, courses, and seminars; and other consumer services, including legal services, residential services, interior design, home security, or wedding services. The media industry consists of firms that provide public relations and marketing services; television or radio broadcasters and channels; cable and satellite television providers; producers and distributors of movies, music, and television shows; and newspaper, magazine, and book publishers. Finally, the retailing industry includes distribution and wholesale companies; internet retailers; department stores; general merchandise stores; apparel and accessories retailers; stores with consumer electronics and computers; home and garden improvement stores; speciality stores, such as jewellery, toy, office supply, or book stores; automotive retail, for example, car dealers, car parts stores, or gas stations; and furniture and home furnishing retail stores (MSCI, 2018).

The consumer discretionary sector has to be distinguished from the consumer staples sector, which contains basic products that people would not give up easily, such as food or drugs. The demand for goods of the consumer discretionary sector is usually a lot more elastic than the demand for the consumer staples goods (Blokhin, 2018). Because the consumer staples goods are very inelastic, CSR actions aimed at customers might only have a very small impact on the consumer behavior, and therefore also on the financial result of firms in this sector (Feng et al., 2017). For this reason, I decided to focus on the consumer discretionary companies, rather than the consumer staples firms.

Companies that operate in the consumer discretionary sector are more visible to consumers and also to the society, as for instance, firms in the materials or the industrials sector (Görg et al., 2018). The consumer discretionary companies deal directly with the end-user, and hence, are highly motivated to maintain a good reputation and customer relations (McWilliams and Siegel, 2001). An effective way to strengthen the relation with customers is, among others, the corporate social engagement (Sprinkle and Maines, 2010). For instance, a study of Cone Communications (2017) found that 89% of the US-consumers were willing

to change the brand they used, to a similar brand which was associated with a social benefit. In addition, 55% of the respondents indicated that they have actually purchased a product last year, because it supported a cause, and what is more, 50% of the consumers have even refused to buy a product when they discovered that it was associated with irresponsible business practices. Consumer discretionary firms can use a CSR strategy to attract customers for several reasons. Firstly, many consumers are attracted to products and services that support CSR, because buying a socially responsible product is a very simple way to do something good for the employees, the society, or the environment. Secondly, consumers tend to associate socially responsible firms with better and more reliable products and services. 85% of the US-consumers indicated they have a higher opinion about products that support a cause which concerns them (Cone Communications, 2010). Finally, a CSR strategy does not only signal a higher quality and reliability, but its products often also have additional quality features that attract customers, such as being pesticide-free (McWilliams and Siegel, 2001).

Similarly, as a socially responsible behavior can lead to a better reputation among consumers, an unethical company behavior can cause a negative publicity, and expose the business to many problems. For instance, Nike had to face a major public crisis in the 1990s. Nike suffered from a serious reputation damage after unethical labor practices were found in its factories in Asia. Customers organized demonstrations in front of Nike stores in the US, and Nike's sales started to drop sharply. Nike had to make numerous changes in the transparency, the wages, and the working conditions in its overseas factories. It took more than seven years until Nike finally overcame the crisis, and got rid of the negative reputation (Lutz, 2015).

Furthermore, some researchers suggest that CSR activities positively affect financial performance, especially in particular industries. For example, Servaes and Tamayo (2013) and Fisman et al. (2006) believe, that CSR leads to higher financial results only in firms with high competition and high customer awareness, measured as advertising expenditure. The consumer discretionary sector contains many very competitive industries, such as automobiles or apparel (Blokchin, 2018), and what is more, this sector also has the highest average advertising spending out of all 10 GICS sectors (Paugam et al., 2016). These facts

indicate that CSR might have a positive impact on financial performance in the consumer discretionary sector. On the other hand, Hull and Rothenberg (2008) find that the effect of CSR on financial performance is strongest in firms that operate in an environment with low differentiation and innovation levels. Admittedly, the consumer discretionary sector already has a relatively high differentiation level, however, it also has very good further diversifying possibilities. Moreover, Feng et al. (2017) assume that not all consumer companies can profit from a differentiation through CSR. The demand after the consumer staples goods is very inelastic, and does not change much, even when the features of the product change. Therefore, a CSR strategy might not lead to higher sales in this sector. On the other hand, consumer discretionary companies sell goods and services with an elastic demand, and tend to invest in market-oriented³ CSR more, because of the higher responsiveness of their customers (Feng et al., 2017).

Finally, the public also believes that the consumer discretionary sector should involve in socially responsible behavior (Cone Communications, 2010). Table 1. shows, which industries should mostly engage in environmental or social causes, according to the Americans.

The majority (7) of the 12 industries listed in the Table 1. belong to the consumer discretionary sector: automotive and transportation; manufacturing; electronics and household appliances; sports, media and entertainment; retail (stores and online); household goods and furniture; and footwear and apparel. Whereas between 77% and 81% of the respondents think, these industries should engage in social or environmental activities (Cone Communications, 2010).

³ Market-oriented CSR deals with, for instance, “responsible supply chain management, activities to improve the quality or safety of products, innovation, fair pricing, or ethical advertising” (Feng et al., 2017, p. 113).

Food and beverage	82%
Automotive and transportation	81%
Manufacturing	81%
Electronics and household appliances	80%
Sports, media and entertainment	80%
Retail (stores and online)	79%
Financial services (e.g., banking, insurance, investing)	79%
Health and beauty	78%
Telecommunications	78%
Household goods and furniture	77%
Footwear and apparel	77%
Professional services (e.g., law firms)	76%

Table 1.: Industries that Should Support Environmental or Social Engagement (Cone Communications, 2010, p.10)

2.6. CSR and Financial Performance

2.6.1. Possible Measurement Methods of Financial Performance

There are various possibilities to measure firm performance. The academic literature that deals with the link between CSR and financial performance frequently applies, for example, return on assets (ROA), return on equity (ROE), return on sales (ROS), stock returns, Tobin's Q, or the price-earnings ratio as performance indicators (e.g.; Waddock and Graves, 1997; Moura-Leite et al., 2014; Maqbool and Zameer, 2018).

Accounting ratios, such as ROA, ROE, and ROS, are based on book values, and mostly reflect the short-term financial result (Kang et al., 2010). More specifically, ROA shows the ability of the total assets to generate income, ROE presents the shareholder return, and ROS the operational effectiveness of a firm (Cohen et al., 1997). Accounting ratios reveal the historical firm performance and might be manipulated by managers (Aras et al., 2010), but

these ratios are more stable than market value-based ratios, and show a more accurate view of company's earnings. On the contrary, Tobin's Q, stock returns, or the price-earnings ratio are market-value based ratios which mainly measure the long-term firm performance (Kang et al., 2010). Admittedly, market value-based ratios also include investors' perceptions, and these could contribute to a greater volatility and a more biased value in comparison to accounting ratios (Aras et al., 2010). Nevertheless, Tobin's Q, stock returns, the price-earnings ratio, or similar measures that are based on the firm's market value, also have an advantage over the book value-based indicators: They reflect the intangible earnings potential of a company. That is, even if the consequences of a CSR activity have not projected into the firm's financial result yet, investors can anticipate the impact of a CSR activity on the company, and include it in its firm value (Busch and Hoffmann, 2011).

Four different financial performance measures are used in this study, in order to capture diverse effects of CSR on companies. Firstly, the impact of CSR on three forms of financial return, ROA, ROE, and ROS, which are based on accounting figures, are tested. And secondly, in order to examine also the link between CSR and a market value-based financial performance measure, the effect of CSR on the firm value, measured as Tobin's Q, is estimated⁴.

2.6.2. Possible Measurement Methods of CSR

A reliable measurement of corporate social performance presents a major challenge for both, companies and researchers. There are several possibilities how to assess the value of CSR, however, all of them have some disadvantages, and none of them is ideal in every situation (de Leaniz and del Bosque, 2013). De Leaniz and del Bosque (2013) provide a review of possible CSR measurement methods that were used by other researchers, and conclude that the following approaches are viable for the assessment of CSR: "reputation indices, databases, single and multiple indicators, content analyses of publications, and measurement frameworks at the individual and organizational levels" (p. 52). I will describe these

⁴ Please refer to chapter 3.3.1. for more details.

measurement approaches in three categories, that have been repeatedly used in the academic literature: (1) expert evaluations such as ratings, datasets and indices; (2) content analyses of relevant reports; (3) surveys; and a fourth category which groups all remaining CSR measurement approaches: (4) others.

Table 2. summarizes the possible CSR measurement methods and their advantages and disadvantages.

CSR Measurement Method	Advantages	Disadvantages
(1) Expert Evaluations	• simple to use • allows a large data sample	• dependence on external assessment • sample limited to evaluated companies
(2) Content Analyses	• objectivity • allows a large data sample	• reports might not reflect CSR level accurately
(3) Surveys	• first hand data • good accuracy of CSR level	• smaller sample size • high workload
(4) Others		

*Table 2.: Advantages and Disadvantages of the Possible CSR Measurement Methods
(based on de Leaniz and del Bosque, 2013)*

The first method, (1) expert evaluations such as ratings, datasets and indices, has been widely used in the academic research because of its simplicity (e.g.; Feng et al., 2017; Flammer, 2017; and Servaes and Tamayo, 2013). CSR ratings, datasets, and indices evaluate the corporate social performance of companies, and rank them according to their scores, or construct a list of the top responsible companies (de Leaniz and del Bosque, 2013). According to Huang and Watson (2015), MSCI ESG STATS (previously known as KLD) is the most popular CSR dataset among researchers. This dataset annually provides

performance indicators, which are measured by a simple binary scoring model (score of 0 or 1) for a set of publicly traded companies in three main categories – environmental, social, and governance (MSCI, 2015). Very popular is also the Thomson Reuters ESG Dataset (previously known as ASSET4), which rates over 6,000 public companies. Differently from MSCI, Thomson Reuters uses a more accurate evaluation scale from 0 to 100 (Thomson Reuters, 2018). Another possibility is to work with a list of the top CSR companies, such as FTSE4Good Index or the Dow Jones Sustainability Indices as a CSR data source (Huang and Watson, 2015). Because of its simplicity, using other expert opinions allows the researcher to the usage of a large data sample. Nevertheless, this sample is limited to the companies that are evaluated by the external party. Moreover, researchers have to rely on skills, qualifications, and measuring methods of other experts, whose results might vary from one to another (Abbott and Monsen, 1979). Chatterji et al. (2016) examine the results of different rating scores (ASSET4, Calvert, DJSI, FTSE4Good, Innovest, and MSCI), and find the ratings to be only weakly correlated. On the other hand, when they compare the results of various rating agencies from the same region (e.g., USA, Europe), they find the scores to be highly correlated. These outcomes suggest that the perception and the measurement methods of CSR might also vary across different geographical regions.

The second method of CSR measurement is the (2) content analysis of relevant reports (McGuire et al., 1988). Krippendorff (2013) describes a content analysis as a “research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (p. 18). This method is employed by, for instance, Aras et al. (2010), who analyze 40 companies listed on the Istanbul Stock Exchange. They evaluate how many sentences each firm disclosed about various CSR components, and if they are positive or negative. This approach enables the development of the most suitable measurement criteria for every researcher. Furthermore, this method is more objective than other experts’ opinions, and allows the use of more extensive samples (Aras et al., 2010). Yet a content analysis also has some drawbacks. Firstly, the subjectivity is still present in the process of the analysis, and the choice of the variables. Secondly, sustainability reports often do not have such qualitative informational value as desired. Reporting CSR engagement accurately is a complex process, and firms usually want to present themselves in the best way possible.

As a result, the reported CSR level does not always mirror the actual extent of CSR activities (Mc Guire et al., 1988).

The third possibility to measure CSR is to carry out a (3) survey. Researchers construct a suitable questionnaire, from which the CSR level of every firm can be assessed, and send it to a group of companies they want to examine (Busch and Hoffmann, 2011). This method can be very demanding, and usually leads to a relatively small sample size. The reason is that, firstly, there is a limited number of companies that can be questioned, and secondly, the respond rate generally tends to be quite low. For example, Husted and Allen (2007) sent a questionnaire to 500 largest Spanish firms, and received 110 answers. Garay and Font (2012) sent questions to 3,225 Catalan small and medium enterprises, of which 394 replied. Moreover, there is a risk of a “non-response bias” if the researcher collects non-representative data, because firms that did not answer the questionnaire possess the same characteristics (Finanzen.net, 2019). However, researchers can prevent this problem with an appropriate formulation of questions, or later examine if non-response bias is present in their research as Husted and Allen (2007) do. The advantage of questioning companies is a good accuracy of the results, since researchers are able to tailor the survey to their necessities, and obtain to first hand data directly from firms.

The last CSR measurement method, (4) others, includes those assessment concepts, that can be used solely under specific conditions, and therefore appear in the academic literature only rarely. For instance, Flammer (2015) uses an uncommon approach, in which she estimates the impact of narrowly approved or rejected shareholder CSR proposals on the market returns and the accounting performance of US publicly traded companies.

In order to measure CSR in this thesis, the first method described above, the expert evaluation, is used. More precisely, Thomson Reuters ESG Data (previously known as ASSET4) is employed in this research⁵.

⁵ Please refer to chapter 3.2.2. for more details.

2.6.3. Literature Review

The results of the previous research concerning the relationship between CSR and financial performance are mixed. In general, it seems that the studies that found CSR to have a positive impact on financial performance slightly outweigh the studies that found a negative link between these two. Margolis et al. (2009) carried out a meta-analysis of 167 studies from 1972 to 2007 that examine the relationship between corporate social performance (CSP) and corporate financial performance (CFP). They found an overall small positive effect between CSP and CFP. The results are stronger for some types of CSP, for example, charitable contributions and environmental practice, and weaker for other, for instance, transparency. However, the studies, which Margolis et al. (2009) consider in their research, are not directly comparable because they broadly differ in many aspects, such as the research design, the data used, the time period, or the measurement method of CSR and CSP. Some differences can be eliminated, but the analyzed studies will hardly ever be completely independent, which makes them statistically problematic. Because of this reason, the outcome of the meta-analysis should be considered as a summary of previous literature rather than a strict statistical result (Margolis et al., 2009). Furthermore, Flammer (2015) found that the early research appears to be largely negative, and on the contrary, the more recent literature mainly supports the positive effect of CSR on financial performance. This finding is not surprising, since the interest in CSR gradually increases with the time. Customers care more about CSR, and want to support sustainable companies to a greater extent than in the past (Cone Communications, 2017).

Table 3. summarizes the literature which was used in this thesis, and examines the relationship between CSR and financial performance. The table depicts the following aspects for each study: The location of all, or the majority of analyzed companies; the main result of the study (positive, negative, or neutral); the type of the dependent variable (book-based, or market-based financial performance); and the CSR measurement method: (1) expert evaluations such as ratings, datasets, and indices; (2) content analysis of relevant reports; (3) surveys; and (4) others.

Study	Location	Result			Dependent Variable		CSR Measurement			
		Pos.	Neg.	Neutral	Book	Market	(1)	(2)	(3)	(4)
Abbott and Monsen (1979)	USA			x		x		x		
Aras et al. (2010)	Turkey			x	x			x		
Busch and Hoffmann (2011)	World			x	x	x			x	
Daszynska-Zygadlo et al. (2016)	World		x			x	x			
Feng et al. (2017)	USA	x				x	x			
Fisman et al. (2006)	USA	x*			x	x	x			
Flammer (2015)	USA	x			x	x				x
Hull and Rothenberg (2008)	USA	x*			x		x			
Jo and Harjoto (2011)	USA	x				x	x			
Lo and Sheu (2007)	USA	x				x	x			
Lys et al. (2015)	USA		x		x	x	x			
Maqbool and Zameer (2018)	India	x			x	x		x		
McGuire et al. (1988)	USA		x		x	x	x			
McWilliams and Siegel (2000)	USA			x	x		x			
Nelling and Webb (2009)	USA		x		x	x	x			
Servaes and Tamayo (2013)	USA	x*				x	x			
Sila and Cek (2017)	Australia	x			x		x			
Trebucq and d'Arcimoles (2002)	France			x	x		x			
Waddock and Graves (1997)	USA	x			x		x			

- x*: positive only under certain conditions
- CSR Measurement: (1) expert evaluations, such as ratings, datasets and indices; (2) content analysis of relevant reports; (3) surveys; (4) others

Table 3.: Literature Review

The following conclusions can be made from the Table 3.: Firstly, the overall results of the previous research are slightly positive, however possibly only under certain conditions. Out of 19 studies, 10 find a positive, 4 a negative, and 5 a neutral link between CSR and the financial performance. Considering only studies that examine US firms, the positive findings (8) outweigh the negative (3) and the neutral results (2) even more clearly. Yet, three of these studies find the positive relationship not in all examined companies, but only in firms with certain features: Fisman et al. (2006) in industries with high competition and advertising,

Hull and Rothenberg (2008) in industries with little differentiation and low innovation, and Servaes and Tamayo (2013) in firms with high customer awareness. Secondly, the choice of the dependent variable does not seem to have much impact on the general results of these studies. Both types of the financial performance measures, the book-based and the market-based, seem to provide mixed results. That is, none of these two inclines to a positive or a negative result. What is more, many studies that analyze the impact of CSR on both, the book-based and the market-based measures of financial performance, find very similar results for both of them (e.g.; McGuire et al., 1988; Nelling and Webb, 2009; Maqbool and Zameer, 2018). Thirdly, most of the studies use expert evaluations (e.g., MSCI or Thomson Reuters rating) for the measurement of CSR. However, the effect of CSR on financial performance also does not seem to depend on the CSR measurement approach, since the results are mixed for all types of the CSR assessment methods.

The following sections present the arguments and outcomes of the previous research, divided into three parts. Firstly, I describe the studies with positive results, secondly, the literature with negative or insignificant results, and finally, the research which examines various types of companies and industry sectors is presented.

2.6.3.1. Positive Effect of CSR on Financial Performance

According to Sprinkle and Maines (2010), CSR leads to competitive advantages, such as risk reduction, development of innovations, or employee satisfaction, when it is applied in the right way. Provided that these advantages will be reflected in the financial performance efficiently, and outweigh the costs of CSR projects, CSR activities will have a positive effect on the firm profitability. Moreover, Maqbool and Zameer (2018), who find a positive impact of CSR on the stock returns and the profitability of banks listed on the Bombay stock exchange, suggest that a skillful integration of CSR in the firm's long-term business plans could contribute to a competitive advantage for the company, and hence a better financial performance. Similarly, Lo and Sheu (2007) find a positive relationship between corporate sustainability and firm market value in US non-financial companies. Their result suggests that investors appreciate, and are prepared to reward sustainable business practices.

However, it is also important to observe the causality direction of the relationship between CSR and financial performance, in order to measure the effect of CSR correctly. Waddock and Graves (1997) test the relationship between CSR and prior and future financial performance, and conclude that CSR is positively linked with both of them. On one hand, this finding supports the theory that firms with a higher previous financial performance and hence more slack resources invest in socially responsible activities more than firms with a lower previous financial performance (Seifert, 2004). On the other hand, the good management theory also holds, since appropriate CSR investment decisions lead to a higher financial performance (Freeman, 2010). Nevertheless, Flammer (2015) examines the impact of the adoption of close-call CSR proposals from shareholders on a sample of US firms and their results show, that CSR leads to positive returns and a better accounting performance. Moreover, by analyzing CSR proposals that succeeded or failed very narrowly, Flammer (2015) presents evidence that CSR is rather the origin of positive returns than the consequence of it.

Some studies (Sila and Cek, 2017; Jo and Harjoto, 2011) also examine the effect of various CSR components on the firm financial performance. A recent study by Sila and Cek (2017) researches the impact of ESG dimensions on the economic performance in Australian companies. They find a significantly positive impact of the social component on the economic performance, and a slightly weaker, but still a positive effect of the environmental component on the economic performance. Similarly, Jo and Harjoto (2011) analyze the relationship between various types of CSR, types of corporate governance, and firm value. They find a positive relationship between all CSR categories and firm value, but firm-internal social projects, such as support of employee diversity or product quality, increase the value of the firm more than the external social and environmental engagement. Finally, Busch and Hoffmann (2011) examine the effect of the environmental performance on firm value and their results suggest that there is an inconclusive relationship between the environmental and the financial performance. They find firm value to be positively related to the environmental performance, however, the link between the firm value and the firms' managerial effort to improve the environmental performance and is negative.

2.6.3.2. Negative or Neutral Effect of CSR on Financial Performance

The shareholder theory, that management's primary responsibility is to maximize shareholders' wealth, has been supported by some researchers (Friedman, 1970; Hemingway and MacLagan; 2004 Lys et al., 2015). They imply that the relation between CSR and financial performance should be negative because CSR causes additional costs, and therefore, socially irresponsible firms have a competitive advantage (McGuire et al., 1988). One of the most prominent followers of this theory was the renowned economist Milton Friedman. He supported the view, that firms which engage in CSR are exposed to agency problems between managers and shareholders, because managers undertake CSR activities in order to follow their own career goals, while these activities only lead to additional costs for shareholders (Friedman, 1970). Hemingway and MacLagan (2004) express a similar opinion in their theoretical study, which deals with the motives for CSR. They indicate, that CSR is more an individual, and less a corporate initiative. More specifically, Hemingway and MacLagan (2004) conclude that managers usually participate in CSR activities because they want to hide their dishonest behavior. Similarly, Lys et al. (2015) also imply that CSR is more linked with the reputation management than with an increased economic performance. They find that firms mostly use CSR in order to signal a strong expected performance, and not to achieve positive returns on CSR investments.

Other researchers such as McGuire et al. (1988) and Nelling and Webb (2009) have some concerns about the causality direction of the relationship between CSR and financial performance. In other words, they assume, that there is a positive link between CSR and the firm performance, but consider the possibility that instead of higher CSR engagement leading to a better financial performance, a better financial performance might lead to more CSR. Using a time series fixed effects approach, Nelling and Webb (2009) find no effect of CSR on financial performance, but find that a higher market performance leads to a higher CSR investment in employee relations. McGuire et al. (1988) analyze both, the impact of CSR on the consecutive stock-market returns and the accounting-based returns, and also the impact of prior returns on CSR. They find the link between the preceding financial performance and the subsequent level of CSR to be stronger than the other way around. Moreover, they

suggest that rather than improving the financial performance, CSR engagement might create other benefits, such as a reduced risk of lawsuits and fines.

Several other studies find CSR and financial performance to be independent of each other. Abbott and Monsen (1979) analyze the Fortune 500 companies, and find that the return is not higher for firms with more social involvement. Neither leads a higher social involvement to an increased rate of return for investors. Similar results deliver McWilliams and Siegel (2000). Apart from conventional control variables at that time, they include investments in R&D in their model, too. They consider 526 US firms in their research, and find that there is a neutral relationship between CSR and profitability. They also find that CSR has a positive effect on the profitability if they do not control for R&D. As a result, they conclude that R&D has a substantial impact on CSR, and that studies which do not consider this fact are biased towards a positive relationship between CSR and financial performance. However, some studies such as Trebucq and d'Arcimoles (2002) and Aras et al. (2010) consider the research of McWilliams and Siegel (2000), and examine the effect of R&D on the relationship between CSR and firm performance in their studies. Surprisingly, both studies find no significant link between CSR and financial profitability when they control for R&D, and their result does not change even if R&D is excluded from their models.

2.6.3.3. The Effect of CSR on Financial Performance in Different Companies and Sectors

Whereas there is a vast amount of literature that examines the link between CSR and financial profitability, only a few recent studies analyze this relationship in specific industry sectors. Daszynska-Zygadlo et al. (2016) and Feng et al. (2017) assume that the effect of CSR on financial performance differs among various types of industries. Both these studies examine the impact of CSR and its components on the firm value in 10 different GICS⁶ sectors, and both find that the results vary across these sectors.

⁶ Global Industry Classification Standard (GICS) is a hierarchical industry classification system developed in 1999 by MSCI and Standard & Poor's. The classification contains 10 industry sectors: energy, materials, industrials, consumer discretionary, consumer staples, health care, financials, information technology, telecommunication services and utilities (MSCI, 2018).

Feng et al. (2017) analyze 3,000 US firms in the period 1991 to 2011. They divide CSR into four categories (employee, environment, society, and market), and suppose that every type of CSR engagement is more appropriate in some industry sectors, and less appropriate in others. The employee-oriented CSR aims at improving the employee benefits and the working conditions, the environment-oriented CSR reflects the company's efforts to reduce the negative impact on the environment, the society-oriented CSR addresses the contribution to the community welfare, and the market-oriented CSR deals with, for instance, "responsible supply chain management, activities to improve the quality or safety of products, innovation, fair pricing, or ethical advertising" (Feng et al., 2017, p. 113). Their results imply that the employee-oriented CSR is significantly related to the firm performance in sectors that are more sensitive in labor issues, like manufacturing sectors (materials, industrials, consumer discretionary, and consumer staples) and sectors that provide mainly services (health care, financials, IT, telecommunication services). The environment-oriented CSR is positively associated with firm value in six environmentally sensitive sectors (energy, materials, industrials, consumer discretionary, consumer staples, and utilities), and also in the financial sector. The society-oriented CSR is linked to a higher firm value in the industrials, the consumer discretionary, the consumer staples and the health care sectors. Finally, the relationship between the market-oriented CSR and the firm value is positive and significant only in the consumer discretionary firms, the industrials, and the utilities sector. Overall, Feng et al. (2017) find CSR to have a positive impact on financial performance in eight industry sectors, and an insignificant impact in only two sectors, energy and utilities.

Daszynska-Zygadlo et al. (2016) examine the relationship between three ESG measures and the firm value of 2,428 companies for the period 2009 to 2012. The overall findings differ significantly from the results of Feng et al. (2017). Daszynska-Zygadlo et al. (2016) find that the environmental measure has a negative effect on the firm value in all 10 sectors. The social measure has a positive impact on the firm value only in the consumer discretionary, the utilities, and the financial sector. Finally, corporate governance positively influences the firm value also in just three sectors: financials, materials, and industrials. However, Daszynska-Zygadlo et al. (2016) also consider the effect of the geographical location of companies on the results. They find that companies located in North America have a significantly positive

impact on the relationship between CSR and the firm value in six sectors: materials, consumer discretionary, healthcare, industrials, telecommunication services, and utilities. This finding could at least partially explain the contrasting results of the two studies. Feng et al. (2017) only examine US companies, where the link between CSR and firm value seems to be stronger than in the rest of the world (Daszynska-Zygadlo et al., 2016).

Other researchers such as Fernández-Kranz and Santaló (2010), Fisman et al. (2006), Servaes and Tamayo (2013), and Hull and Rothenberg (2008), anticipate a possible competitive advantage of CSR in certain industries and types of firms. In some markets, it could be beneficial for companies to use CSR as a differentiation strategy with the possibility to sell at premium prices, or to generate higher demand for products (McWilliams and Siegel, 2001). This view is also supported by Fernández-Kranz and Santaló (2010) who examine the relationship between CSR and the product market competition. They find that firms, which operate in a highly competitive environment, engage more in CSR activities because consumers are willing to pay for this additional product characteristic. Likewise, Fisman et al. (2006) and Servaes and Tamayo (2013) find that corporate philanthropy is positively linked to the financial performance and the firm value in firms with a high competition and advertising expenditure, and negatively or insignificantly for firms with a low advertising expenditure. A high competition and advertising expenditures are characteristic features for the consumer discretionary sector which contains many competitive industries, for example, automobiles or apparel (Blokhin, 2018). Fisman et al. (2006) suggest that CSR serves as a vertical differentiation strategy in markets where it is problematic to determine the product quality. Finally, the research of Hull and Rothenberg (2008) confirms this theory, too, and shows that the intensity of the CSR impact on the financial performance is the strongest in markets with little differentiation and in companies with low innovation. Consumer discretionary companies have a good possibility to profit from a differentiation through CSR, since this sector is characteristic for an elastic demand and a high customer responsiveness (Feng et al., 2017).

3. Research Design

This section provides a detailed description of the data and research methods used in this thesis. Firstly, the hypotheses that are tested in this thesis are explained. Secondly, the data sample, the CSR data, and the financial data are described. Thirdly, all variables used in the models are described in detail, and finally, the regression models that are used to measure the effect of CSR activities on financial return are introduced.

3.1. Hypotheses

3.1.1. CSR and Financial Return (H1)

Three hypotheses have been developed to test the impact of CSR on the financial return: H1 (a), H1 (b), and H1 (c):

H1 (a): *A higher CSR score leads to a better financial return (measured as ROA) in consumer discretionary firms.*

H1 (b): *A higher CSR score leads to a better financial return (measured as ROE) in consumer discretionary firms.*

H1 (c): *A higher CSR score leads to a better financial return (measured as ROS) in consumer discretionary firms.*

The hypothesis *H1 (a)* analyses the question if a higher CSR score leads to a higher financial return, measured as ROA, in firms that operate in the consumer discretionary sector. The hypotheses *H1 (b)* and *H1 (c)* examine the same question, with the difference, that the financial return is measured as ROE and ROS, respectively.

3.1.2. CSR and Firm Value (H2)

I have developed three hypotheses to test the effect of CSR on the firm value: H2 (a), H2 (b), and H2 (c):

H2 (a): *A higher CSR score leads to a higher firm value (measured as Tobin's Q) in consumer discretionary firms.*

H2 (b): *A higher environmental score leads to a higher firm value (measured as Tobin's Q) in consumer discretionary firms.*

H2 (c): *A higher social score leads to a higher firm value (measured as Tobin's Q) in consumer discretionary firms.*

The hypothesis *H2 (a)* tests if a higher CSR score leads to a higher firm value, measured as Tobin's Q, in firms that operate in the consumer discretionary sector. The hypothesis *H2 (b)* analyses whether an increased environmental engagement contributes to a higher Tobin's Q, and finally, the hypothesis *H2 (c)* examines if an increased social engagement helps to achieve a higher Tobin's Q in consumer discretionary firms.

3.2. Data

3.2.1. Data Sample

All firms that are listed in the S&P 500 index and operate in the consumer discretionary sector are analyzed in this thesis. The S&P 500 consists of 505 large US companies, and is considered to be the leading indicator of the US securities market, so this sample perfectly represents the US consumer discretionary sector (S&P Dow Jones Indices, 2019).

A list of the S&P 500 index constituents as of December 31, 2017 was retrieved from the Compustat database, and only firms that belong to the consumer discretionary sector were selected. Table 4. presents the final sample of 80 firms that are examined in this thesis.

1	Advance Auto Parts	41	Marriott International
2	Amazon.com, Inc.	42	Mattel, Inc.
3	Aptiv PLC	43	McDonald's Corporation
4	AutoZone, Inc.	44	MGM Resorts International
5	Best Buy Co., Inc.	45	Michael Kors Holdings Limited
6	Booking Holdings. Inc.	46	Mohawk Industries
7	BorgWarner, Inc.	47	Newell Brands
8	Carmax, Inc.	48	News Corporation
9	Carnival Corporation	49	Nike, Inc.
10	CBS Corporation	50	Nordstrom, Inc.
11	Charter Communications, Inc.	51	Norwegian Cruise Line
12	Chipotle Mexican Grill, Inc.	52	Omnicom Group, Inc.
13	Comcast Corporation	53	O'Reilly Automotive
14	D. R. Horton, Inc.	54	Polo Ralph Lauren Corporation
15	Darden Restaurants, Inc.	55	PulteGroup, Inc.
16	Discovery, Inc.	56	PVH Corporation
17	Dish Network Corporation	57	Ross Stores
18	Dollar General Corporation	58	Royal Caribbean Cruises Ltd.
19	Dollar Tree, Inc.	59	Scripps Network Interactive
20	Expedia Group	60	Signet Jewelers Ltd.
21	Foot Locker Retail, Inc.	61	Snap-On, Inc.
22	Ford Motor Company	62	Stanley Black & Decker, Inc.
23	Gap, Inc.	63	Starbucks Corporation
24	Garmin Ltd.	64	Tapestry, Inc.
25	General Motors Company	65	Target Corporation
26	Genuine Parts Company	66	Tiffany & Company
27	Goodyear Tire & Rubber Company	67	Time Warner, Inc.
28	Hanesbrands, Inc.	68	TJX Companies, Inc.
29	Harley-Davidson, Inc.	69	Tractor Supply Company
30	Hasbro, Inc.	70	TripAdvisor, Inc.
31	Hilton WorldwideHoldings, Inc.	71	Twenty-First Century Fox
32	Home Depot, Inc.	72	Ulta Beauty, Inc.
33	Interpublic Group of Companies, Inc.	73	Under Armour, Inc.
34	Kohl's Corporation	74	V.F. Corporation
35	L Brands, Inc.	75	Viacom, Inc.
36	Leggett & Platt	76	Walt Disney Company
37	Lennar Corporation	77	Whirlpool Corporation
38	LKQ Corporation	78	Wyndham Worldwide Corporation
39	Lowe's Companies	79	Wynn Resorts Ltd.
40	Macy's, Inc.	80	Yum! Brands, Inc.

Table 4.: Examined Consumer Discretionary Companies

The data was collected for a period of 8 years (2009 to 2016 for the independent variables, and 2010 to 2017 for the dependent variables⁷). Thomson Reuters ESG dataset is available from the year 2007, but I wanted to avoid examining data from the financial crisis period. Both, the financial and the CSR data could have been biased during and immediately after the financial crisis.

A complete data set for the CSR data and the dependent variables was only available for 589 firm-year observations for the analysis of the CSR effect on the financial return (H1), and 558 firm-year observations for the analysis of the CSR impact on the firm value (H2). Moreover, some advertising expenditure values were missing in the Compustat database (68 values for the H1 analysis and 65 values for the H2 analysis). To ensure the validity of this research, data points with missing advertising values were dropped from the data sample.

Finally, to prevent abnormal observations from skewing the results, I identified outliers in all six models, and eliminated them from the data sample. The outlier detection was done similarly to Black et al. (2015). The dependent variable was regressed on only one independent variable, CSR⁸. All observations with standardized residuals larger than +2 or smaller than -2 were classified as outliers. As a result, 20 observations were identified as outliers, and dropped from the sample for H1 (a), 6 observations for H1 (b), 23 observations for H1 (c), 30 observations for H2 (a), 28 observations for H2 (b), and 28 observations for H2 (c). The final data sample which will be used for the regression analyses consists of 501 firm-year observations for H1 (a), 516 firm-year observations for H1 (b), 499 firm-year observations for H1 (c), 467 firm-year observations for H2 (a), 465 firm-year observations for H1 (b), and 465 firm year observations for H2 (c).

⁷ In order to achieve a correct causality direction, the dependent variables, financial performance and firm value, were lagged by one year. See section 3.3. for further details.

⁸ The dependent variable was regressed on CSR for the analysis of H1 (a), (b), (c) and H2 (a), on the environmental score for the analysis of H2 (b) and on the social score for the analysis of H2 (c).

3.2.2. CSR Data

The CSR data was collected from the Thomson Reuters ESG Database, also known as ASSET4. This database provides separate environmental, social, and governance scores, and also an overall ESG score for securities all over the world (Thomson Reuters, 2018).

Thomson Reuters is a globally recognized ESG information provider, which is used by many researchers that examine CSR (e.g.; Daszynska-Zygadlo et al., 2017; Lys et al., 2015; Sila and Cek, 2017). Over 150 experienced analysts obtain relevant information from annual reports, CSR reports, company and NGO websites, news sources, and other publicly available sources in order to create a rating of firms' engagement in ESG activities (Thomson Reuters, 2018).

Figure 5. shows the structure of the three ESG pillars, its 10 score categories and the number of measures that are used in the ESG rating development.

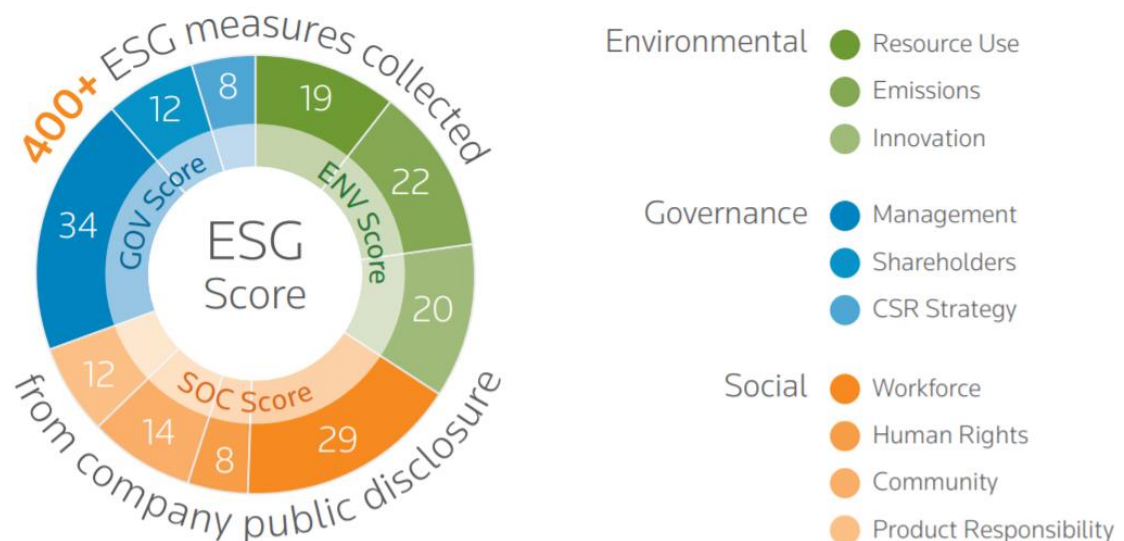


Figure 5.: Thomson Reuters ESG Data Structure (Thomson Reuters, 2018, p. 6)

The ESG score calculation is based on 178 company measures. These measures are grouped into 10 score categories, and every category is separately rated. The final rating for each ESG pillar is based on these score categories and moves on a scale between 0 and 100.

The environmental rating is based on three score categories: Resource Use, Emissions, and Innovation. The Resource Use score measures the efficiency in decreasing the spending of resources in the production process, such as materials and energy, but also the capability of making the distribution process more ecologically friendly. The Emissions score evaluates the ability to reduce harmful emissions in the business processes. The Innovation score measures the level of the creation of new sustainable technologies or products, but also how much a company can decrease the environmental costs for consumers (Thomson Reuters, 2018).

The social rating consists of four different score categories: Workforce, Human Rights, Community, and Product Responsibility. The Workforce score reflects the level of employee satisfaction, diversity in workplace, and career and development prospects for the workers. The Human Rights score evaluates the recognition and adherence to human rights. The Community score reflects the engagement in public issues and the level of ethical behavior of the company. Finally, the Product Responsibility score measures the quality of company's products and services in general, but also the safety, the health, or the privacy of its customers (Thomson Reuters, 2018).

Similarly to Flammer (2015), I do not consider corporate governance as a part of CSR in this analysis. Corporate governance does not fit into the definition of CSR, because unlike CSR, corporate governance is often required by law, and what is more, it lies mainly in the interests of a firm and its shareholders. Corporate governance should, in first line, ensure, that a company works as efficiently as possible. It is clearly associated with increased profits, and it aims at providing safety to investors of all types. On the other hand, the concept of CSR seems to be advantageous mostly for external stakeholders, and even affect shareholders negatively (Beltratti, 2005). The objective of this thesis is to examine if stakeholders only see CSR as a useless effort and extra costs, or if they distinguish the benefits, and are also

willing to pay for them. The benefits of corporate governance seem to be more straightforward because a better firm effectivity clearly leads to a higher profitability. Because of these reasons, only the social and the environmental score will be used as the CSR measure in this research.

The 10 score categories that build the base for the ESG rating are each weighted differently. Figure 6. shows the number of measures and the weights for each score category of the original ESG rating calculation, and also the weights of the adapted CSR score used in this thesis which does not contain the governance score.

Original ESG Score					
ESG Score	Measures	Weight		CSR Score	Measures Weight
Enviromental	61	34%		Enviromental	61 50%
Resource Use	20	11%		Resource Use	20 16%
Emissions	22	12%		Emissions	22 18%
Innovation	19	11%		Innovation	19 16%
Social	63	35.5%		Social	63 50%
Workforce	29	16%		Workforce	29 23%
Human Rights	8	4.5%		Human Rights	8 6%
Community	14	8%		Community	14 11%
Product Responsibility	12	7%		Product Responsibility	12 10%
Governance	54	30.5%			
Management	34	19%			
Shareholders	12	7%			
CSR Strategy	8	4.5%			

Figure 6.: Thomson Reuters ESG Category Weights (Thomson Reuters, 2018, p. 8)

The left table shows the number of measures used in the calculation of the ESG score, and the weight each pillar and their category scores have in the overall ESG score. The right table depicts the score that is used in this thesis as the CSR measure: only the number of measures and the weights for the environmental and the social pillar are described in the table. Whereas the number of measures remains unchanged, the social and the environmental score weights, and also the seven remaining category weights change. The components of the new CSR score are weighted as follows. The environmental score forms 50% of the overall CSR rating, and consists of 16% of the Resource Use, 18% of the Emissions, and 16% of the Innovation

score categories. The social score also forms the CSR rating by 50%, but the four category weights differ from each other more, than the environmental score categories. The Workforce category is weighted by 23%, whereas the Human Rights category is weighted only by 6%, Community by 11%, and Product Responsibility by 10% (Thomson Reuters, 2018).

3.2.3. Financial Data

The data for the dependent variables and the control variables were collected from the Compustat – Capital IQ database, which was accessed via the Wharton Research Data Services. Table 5. provides the details to all variables obtained from Compustat.

Variables	Compustat Variables
ROA (return on assets)	$\frac{NI}{AT}$
ROE (return on equity)	$\frac{NI}{SEQ}$
ROS (return on sales)	$\frac{NI}{SALE}$
Tobin's Q	$\frac{MKVALT + LT}{AT}$
Size	$\ln(AT)$
Risk	$\frac{DLTT}{AT}$
Age	$\ln(2018 - IPODATE)$
Advertising	$\frac{XAD}{SALE}$
Sales Growth	$\frac{SALE_t - SALE_{t-1}}{SALE_{t-1}}$

Table 5.: Data Obtained from Compustat

Where NI is the net income, AT are the total assets, SEQ is the total stockholders' equity, SALE are net sales, MKVALT is the total market value, LT are the total liabilities, DLTT is the long-term debt, IPODATE⁹ is the initial public offering date of a company, and XAD is the advertising expense.

3.3. Variables

Similarly to Waddock and Graves (1997), I lag the dependent variables by one year in order to achieve a correct causality relationship between the dependent and the independent variables. That is, the independent variables in the model should affect the dependent variable, and not the other way around. Therefore, CSR data and the data for the control variables were collected for the years 2009 to 2016, and the data for the dependent variables were collected for the years 2010 to 2017.

3.3.1. Dependent Variables

This thesis examines the impact of CSR on financial performance, represented by the financial return (ROA, ROE, ROS) and the firm value (Tobin's Q). Therefore, ROA, ROE, ROS, and Tobin's Q are used as the dependent variables in the models.

Financial performance is measured as return on assets (ROA) in the model that examines the hypothesis H1 (a):

$$ROA = \frac{\text{net income}}{\text{total assets}}$$

⁹ The initial public offering date information was missing for some companies in the Compustat database. This missing information was found on companies' websites or other publicly available sources and added to the data sample.

Financial performance is measured as return on equity (ROE) in the model that examines the hypothesis H1 (b):

$$ROE = \frac{\text{net income}}{\text{total shareholders' equity}}$$

Financial performance is measured as return on sales (ROS) in the model that examines the hypothesis H1 (c):

$$ROS = \frac{\text{net income}}{\text{net sales}}$$

Firm value is measured as Tobin's Q in the models that examines the hypotheses H2 (a), H2 (b), and H2 (c). Tobin's Q is the ratio of the market value of a company's assets to the replacement cost of the company's assets (The Financial Times Lexicon, 2019). However, the replacement cost of the company's assets is very difficult to determine. For this reason, the calculation of Tobin's Q is based on Chung and Pruitt (1994) in this thesis. They developed a simple approximation of Tobin's Q, that is defined as:

$$\text{Tobin's } Q = \frac{\text{total market value} + \text{total liabilities}}{\text{total asset value}}$$

Where the total market value equals the number of shares outstanding multiplied by the share price.

3.3.2. Independent Variables

Independent variables used in this study are CSR (and its components), and other control variables that also affect financial performance.

CSR is estimated with the help of the Thomson Reuters ESG data rating. This rating evaluates companies in environmental, social, and governance categories. The variable CSR

will be measured as the mean of the environmental and the social score in this thesis. In order to test the impact of only the environmental engagement on the firm value, CSR is substituted by the Thomson Reuters environmental score for the examination of H2 (b). Similarly, to test the effect of the participation in social activities on the firm value, the Thomson Reuters social score is used instead of CSR for the testing of H2 (c).

There are other factors apart from CSR, which affect the financial return and the firm value. These factors will be included in the models as control variables. Since return and firm value are closely related to each other, I will use very similar control variables for all six models.

Firm's *SIZE* is characterized as an important determinant of the relationship between CSR and financial performance by many researchers (e.g.; Waddock and Graves, 1997; Maqbool and Zameer, 2018; Feng et al., 2017; Busch and Hoffmann, 2011). Size not only affects the financial performance, but also reflects the market power in the sector (Chhibber and Majumdar, 1999). However, the relationship between size and financial performance is not always clear. Size is found to be negatively associated with firm value in some previous studies (e.g.; Lo and Sheu, 2007), and positively in others (e.g.; Busch and Hoffmann, 2011). Managerial decisions might be less efficient in large firms because the insight into the operational business is not as deep as in small firms. Moreover, larger firms are more bureaucratic and rigid than smaller firms, and cannot adapt to changes so quickly. On the other hand, larger firms can profit from economies of scale and from a standardization of procedures (Chhibber and Majumdar, 1999). Firm size is measured as the natural logarithm of total assets in this thesis.

RISK is also a widely used control variable in studies that examine the effect of CSR on financial performance (for example: McGuire et al.; 1988; Waddock and Graves, 1997; Aras et al., 2010). Management's tolerance to risk affects the willingness to invest in CSR (Waddock and Graves, 1997). Furthermore, firms with a higher debt and hence risk might be partially in the control of their creditors, and therefore limited in their financial decisions (Barbosa and Louri, 2005). Risk is expected to be negatively correlated with both, the

financial return and the firm value. Firm's risk is measured as the ratio of long-term debt to total assets.

AGE is also expected to be negatively related to financial performance, because younger firms tend to grow faster than older firms (Loderer et al., 2017). Furthermore, even though older firms have more experience, they are often very inflexible and less innovative than young firms (Chhibber and Majumdar, 1999). Similarly to Feng et al. (2017), I measure age as the natural logarithm of the number of years a firm has been listed in a stock exchange.¹⁰

Advertising (ADV) is included as a control variable in this model because some researchers (Servaes and Tamayo, 2013; Fisman et al., 2006) suggest that investment in CSR only improves firm value in companies with high customer awareness, measured as advertising spending. Apart from increasing customer awareness, advertising can be used as a communication tool, and inform clients and other stakeholders about the reliability, the honesty, and other CSR attributes of the firm. Customers tend to associate an honest and reliable firm with high quality products, which might lead to higher sales, and consequently to a higher financial performance (McWilliams and Siegel, 2000). Because of these reasons, I expect advertising to impact the firm performance positively. Advertising is measured as the ratio of advertising expenses to net sales.

Finally, *sales growth (SG)* is used as a control variable only in models that test hypotheses H2 (a), (b), and (c), which concern the relationship between CSR and firm value. I expect the link between sales growth and financial performance to be positive, because firm value tends to increase with higher sales (Hirsch, 1991). Sales growth is measured as the yearly percentage increase in sales.

McWilliams and Siegel (2000) also consider R&D to be an important part of the relationship between CSR and financial performance. Therefore, R&D was also added to the model as a

¹⁰ Other researchers such as Maqbool and Zameer (2018) measure firm age as number of years since the inception date until today. I decided to measure the number of years the firm is listed, because of the good availability of this data in the Compustat database.

control variable at first, but the R&D data in the Compustat database was not complete (244 out of 589 values were missing). Moreover, if I considered only the complete data set of 345 observations in the regression analysis, R&D turned out to be statistically not significant. Because of these reasons, R&D was left out from the model.

Many other researchers also control for industry effects (e.g.; Brammer and Millington, 2008; Hull and Rothenberg, 2008; Lo and Sheu, 2007). However, as this thesis examines solely the consumer discretionary sector, which only contains a certain type of industries, I leave this control out. What is more, Fisman et al. (2006) find that CSR only has a positive impact on financial performance in industries with a high advertising spending and competition. Similarly, Servaes and Tamayo (2013) find a positive relationship between CSR and firm performance only in companies with a high customer awareness. The consumer discretionary sector contains exactly these industries, and for that reason, controlling for different industries within this sector should not be necessary.

3.4. Regression Models

A set of OLS (ordinary least squares) regression models is used to examine the relationship between CSR and financial performance. A set of tests is carried out to ensure that the models are unbiased and correctly specified. Firstly, a multicollinearity test shows if there are no intercorrelations among independent variables. Secondly, a heteroskedasticity test examines the equal distribution of the residuals in a regression. And finally, a robustness check should reveal if the relationship between variables is unbiased and robust.

I use the statistical software XLSTAT for the calculation of the regression models. XLSTAT is an add-on for Microsoft Excel, and provides a wide range of statistical functions and data analysis possibilities. XLSTAT disposes of a more detailed results evaluation than the basic Excel version, and also offers other useful additional functions necessary for this analysis, like a multicollinearity test or a heteroskedasticity adjustment option (XLSTAT, 2018).

3.4.1. CSR and Financial Return

The following equations were developed in order to test H1 (a), H1 (b), and H1 (c). The models analyze the effect of the CSR engagement on financial return, measured as ROA (a₁), ROE (a₂), and ROS (a₃), with size, risk, age, and advertisement intensity used as the control variables. These models are partially based on the Waddock and Graves (1997), the McWilliams and Siegel (2000), and the Maqbool and Zameer (2018) regression models:

$$ROA = \alpha + \beta_1 CSR + \beta_2 SIZE + \beta_3 RISK + \beta_4 AGE + \beta_5 ADV + \varepsilon \quad (a_1)$$

$$ROE = \alpha + \beta_1 CSR + \beta_2 SIZE + \beta_3 RISK + \beta_4 AGE + \beta_5 ADV + \varepsilon \quad (a_2)$$

$$ROS = \alpha + \beta_1 CSR + \beta_2 SIZE + \beta_3 RISK + \beta_4 AGE + \beta_5 ADV + \varepsilon \quad (a_3)$$

Where *ROA* is the return on assets; *ROE* is the return on equity; *ROS* is the return on sales; α is the y-intercept (the return when *CSR*, *SIZE*, *RISK*, *AGE*, and *ADV* are zero); β_1 to β_5 are the slopes of the regression; *CSR* is the social responsibility score, measured as the mean of the social and the environmental score; *SIZE* is the natural logarithm of total assets; *RISK* is the relation of the long term debt to total assets; *AGE* is the natural logarithm of the number of years a firm has been listed in a stock exchange; *ADV* is the relation of the advertising expenditure to net sales; and ε is the ‘noise’ factor (other aspects that have an impact on the dependent variables).

3.4.2. CSR and Firm Value

The following equations were developed in order to test H2 (a), H2 (b), and H2 (c). The models examine the effect of the CSR engagement overall (b₁), only the environmental engagement (b₂), and only the social engagement (b₃) on firm value, with size, risk, age, advertisement intensity, and sales growth used as control variables. These models are partially based on the Konar and Cohen (2001), the Daszynska-Zygadlo et al. (2016), and the Feng et al. (2017) regression models:

$$Tobin's Q = \alpha + \beta_1 CSR + \beta_2 SIZE + \beta_3 RISK + \beta_4 AGE + \beta_5 ADV + \beta_6 SG + \varepsilon \quad (b_1)$$

$$Tobin's Q = \alpha + \beta_1 ENV + \beta_2 SIZE + \beta_3 RISK + \beta_4 AGE + \beta_5 ADV + \beta_6 SG + \varepsilon \quad (b_2)$$

$$Tobin's Q = \alpha + \beta_1 SOC + \beta_2 SIZE + \beta_3 RISK + \beta_4 AGE + \beta_5 ADV + \beta_6 SG + \varepsilon \quad (b_3)$$

Where *Tobin's Q* is the firm value measure; α is the y-intercept (the return when *CSR*, *SIZE*, *RISK*, *AGE*, *ADV*, and *SG* are zero); β_1 to β_6 are the slopes of the regression; *CSR* is the Thomson Reuters ESG score, measured as the mean of the social and the environmental score; *ENV* is the Thomson Reuters environmental score; *SOC* is the Thomson Reuters social score; *SIZE* is the natural logarithm of total assets; *RISK* is the relation of the long term debt to total assets; *AGE* is the natural logarithm of the number of years a firm has been listed in a stock exchange; *ADV* is the relation of the advertising expenditure to net sales; *SG* is the sales growth, measured as yearly percentage increase in sales; and ε is the 'noise' factor (other aspects that have an impact the dependent variable).

3.4.3. Multicollinearity Test

Multicollinearity is “the occurrence of high intercorrelations among independent variables in a multiple regression model” (Investopedia, 2018d). I will use the statistical software XLSTAT for this test, which also calculates the variance inflation factors (VIF) to measure multicollinearity. The lowest VIF value of 1 indicates no correlation among variables. There is no exact guideline on how much multicollinearity is allowed in a regression analysis, but a common rule of thumb indicates that a VIF factor near or above 5 should cause some concerns about intercorrelations, and a VIF factor of over 10 suggests a severe multicollinearity problem because of inadequately chosen variables (Minitab, 2018).

3.4.4. Heteroscedasticity Test

Heteroscedasticity in a regression model is the state “when the standard deviations of a variable, monitored over a specific amount of time, are nonconstant” (Investopedia, 2018c). Heteroscedasticity is not a rare phenomenon, but rather a frequently appearing problem in

many similar studies (e.g.; Inoue and Lee, 2011; Servaes and Tamayo, 2013; and Maqbool and Zameer, 2018). The unequal distribution of standard deviations could pose a problem for the model because the coefficients and the interpretation of the results could be misleading under this condition (Brooks, 2008). For this reason, I will perform the Breusch-Pagan-Godfrey test for heteroscedasticity. I will use the squared residuals of the original regression results as the dependent variable, and regress them on all independent variables in each model. H_0 of this test says the residuals are homoscedastic and H_1 means the residuals are heteroskedastic. If the results of the F-test show a p-value bigger than 5%, I can accept H_0 , and assume the residuals are constant. But if the test is significant on the 95% level, I will have to reject the null hypothesis, and conclude that the data suffers from heteroscedasticity.

3.4.5. Robustness Test

I will perform a robustness test to be certain that the relationships among the variables in the regression models are robust. Firstly, four variables, ROA, SIZE, RISK, and Tobin's Q include total assets in their formula. To ensure that this connection will not affect the results, a test will be performed where SIZE is measured by the natural logarithm of the number of employees instead of total assets in all six regression models. Likewise, RISK will be measured as total debt divided by total equity instead of long-term debt over total assets in the equations a_1 , b_1 , b_2 , and b_3 . Secondly, the variables ROS, SG, and ADV all contain net sales in their formula. Therefore, a test will be performed in which ADV is measured as the ratio of advertising expenses to total operating expenses instead of advertising expenses to net sales in the models a_3 , b_1 , b_2 , and b_3 .

4. Results

The results of my analysis will be provided in this section. As a first step, I will summarize all variables in descriptive statistics. Secondly, I will describe the relationships among the

variables with the help of the Spearman correlation. Finally, the results of the regression models and the robustness test will be presented.

4.1. Descriptive Statistics

Table 6. presents descriptive statistics, the basic characteristics of all variables (with outliers) used in this analysis.

	Mean	Standard Error	Standard Deviation	Min	Max	Count
ROA	0.0861	0.0028	0.0630	-0.1689	0.3347	521
ROE	0.3394	0.1175	2.6826	-9.7489	57.8889	521
ROS	0.0839	0.0030	0.0683	-0.2400	0.4613	521
Tobin's Q	2.4669	0.0657	1.4585	0.6671	9.0179	493
CSR	47.9491	0.5146	11.7454	22.1500	73.9750	521
ENV	48.2823	0.6904	15.7590	25.1909	88.7000	521
SOC	47.6159	0.5045	11.5155	14.2455	77.3000	521
SIZE	9.2458	0.0467	1.0663	6.5153	12.3798	521
RISK	0.2618	0.0085	0.1930	0	1.6541	521
AGE	3.2355	0.0328	0.7496	0	4.6634	521
ADV	0.0443	0.0024	0.0546	0.0005	0.3669	521
SG	0.0668	0.0065	0.1443	-0.5142	1.2503	493

Table 6.: Descriptive Statistics

The mean of Tobin's Q equals to 2.47, which indicates that the market value of the average consumer discretionary firm is 2.47 times higher than the company's replacement costs (Investopedia, 2019).

The mean of ROA, ROE, and ROS is positive, but the minimum of all these three variables is negative, so not all firms from the sample are making positive profits all the time.

The mean of the environmental score (48.28), but also the minimum (25.19), and the maximum (88.7) are moderately higher than the mean (47.61), the minimum (14.25), and the maximum (77.3) of the social score. This finding suggests that companies probably care more about and invest more in environmental actions than in social actions.

The average advertising expenses make 4.4% of net sales, while the maximal advertising expense equals 36.7% of net sales. The average yearly sales growth equals 6.7%, however, some firms also experience a decline in sales since the minimum is a negative value (-51%).

4.2. Correlation

Table 7. contains the correlations among all variables in H1 (models that measure the relationship between CSR and financial return).

Variables	ROA	ROE	ROS	CSR	SIZE	RISK	AGE	ADV
ROA	1	0.069	0.637	-0.118	-0.357	-0.232	0.014	-0.015
ROE	0.069	1	0.030	-0.011	-0.032	0.098	0.017	-0.015
ROS	0.637	0.030	1	-0.094	-0.056	0.029	-0.102	0.228
CSR	-0.118	-0.011	-0.094	1	0.241	0.064	0.313	-0.135
SIZE	-0.357	-0.032	-0.056	0.241	1	0.294	0.236	-0.064
RISK	-0.232	0.098	0.029	0.064	0.294	1	0.015	-0.091
AGE	0.014	0.017	-0.102	0.313	0.236	0.015	1	-0.174
ADV	-0.015	-0.015	0.228	-0.135	-0.064	-0.091	-0.174	1

Bold values in this table are significant at the 5% level.

Table 7.: Correlation among Variables in H1

Both, ROA and ROS are apparently negatively and significantly correlated with CSR. Even though this relationship does not take into consideration other control variables, it will not be surprising if the overall impact of CSR on financial performance also turns out to be negative.

ROA is negatively correlated with SIZE and RISK, too. Because indebted firms might have limited investing opportunities, financial performance is expected to be negatively related to RISK. However, contrary to my assumptions, ROE has a positive and significant relationship to RISK. The correlation between ROS and AGE is negative, and the link between ROS and ADV is positive as predicted.

CSR is positively related to AGE and SIZE, which is not surprising, since older firms are usually larger, and have more resources available for CSR activities (Waddock and Graves, 1997). Furthermore, CSR is negatively related to ADV, which can also be explained. Companies might not have enough capital for investing generously into both, CSR and advertising. Therefore, if firms spend more resources on advertising, they might cut CSR spending, and the other way around.

Table 8. depicts the correlations among variables in H2 (models that measure the link between CSR and firm value).

Similarly as the financial return measures, Tobin's Q is also negatively and significantly correlated with CSR and its both components, SOC and ENV. This negative relationship is greater for the environmental score than the social score.

Furthermore, Tobin's Q is also negatively related to SIZE, RISK, and AGE as expected. Larger and older firms have fewer investment opportunities which can result in a lower firm value (Servaes and Tamayo, 2013). Unsurprisingly, SG and ADV have a positive relationship with Tobin's Q.

Variables	<i>Tobin's Q</i>	<i>CSR</i>	<i>ENV</i>	<i>SOC</i>	<i>SIZE</i>	<i>RISK</i>	<i>AGE</i>	<i>SG</i>	<i>ADV</i>
<i>Tobin's Q</i>	1	-0.231	-0.237	-0.149	-0.342	-0.187	-0.102	0.239	0.172
<i>CSR</i>	-0.231	1	0.902	0.813	0.232	0.032	0.312	-0.186	-0.136
<i>ENV</i>	-0.237	0.902	1	0.481	0.410	0.008	0.278	-0.167	-0.112
<i>SOC</i>	-0.149	0.813	0.481	1	-0.081	0.054	0.258	-0.154	-0.125
<i>SIZE</i>	-0.342	0.232	0.410	-0.081	1	0.262	0.223	-0.149	-0.077
<i>RISK</i>	-0.187	0.032	0.008	0.054	0.262	1	-0.001	-0.175	-0.102
<i>AGE</i>	-0.102	0.312	0.278	0.258	0.223	-0.001	1	-0.054	-0.188
<i>SG</i>	0.239	-0.186	-0.167	-0.154	-0.149	-0.175	-0.054	1	0.140
<i>ADV</i>	0.172	-0.136	-0.112	-0.125	-0.077	-0.102	-0.188	0.140	1

Bold values in this table are significant at the 5% level.

Table 8.: Correlation among Variables in H2

Finally, the correlation between CSR and SG is negative. Because sales growth represents an important indicator of firm value, this finding also signals a possibly negative effect of CSR on Tobin's Q.

4.3. Regression Results

To sum up the findings of this thesis, none of the six hypotheses could have been confirmed. CSR is mostly not significantly related to financial return, and slightly negatively related to firm value.

The significance level for all regression models is set at 5%. However, if any item results to be significant even at the 1% level, only this lower level of significance is stated. As regards the overall goodness of fit, I only refer to the adjusted R^2 , because in contrast to the simple R^2 , the adjusted R^2 also considers the number of the independent variables in the regression model (Wooldridge, 2015).

Three different checks (Multicollinearity, Heteroskedasticity, and Robustness test) are performed to ensure the correctness of the model.

Firstly, multicollinearity is measured with the variance inflation factor (VIF). The VIF scores in all six regression models move between 1.0007 and 1.2281, which are very low numbers. Therefore, I can conclude that multicollinearity does not pose a problem in this analysis. Tables 9., 10., 11., and 12. show the VIF numbers in more detail.

Secondly, a heteroskedasticity test is performed as described in the section 3.3.4. All models are found to be heteroskedastic, and need to be adjusted accordingly. XLSTAT, a statistical software for Excel is employed to deal with this problem. This software offers the possibility to correct the models via HC0, a heteroscedasticity consistent covariance matrix. The calculations of covariances are adapted with the help of residuals collected from the linear regression (XLSTAT, 2018).

Finally, the robustness check is used to test different variable measures for SIZE, RISK, and ADV. All six original regression models are adapted as described in the section 3.3.5., and compared to the original regression models. The findings reveal some unexpected differences in the relationship among the variables, but the overall results of this thesis remain the same. More information on the outcomes of the robustness test can be found in the chapter 4.3.3.

4.3.1. Results: CSR and Financial Return (H1)

Table 9. depicts the results of three regression models (a_1 , a_2 , a_3) that test the impact of CSR on financial return. ROA is used as the dependent variable in the model a_1 , that tests H1 (a), ROE in the model a_2 , that tests H1 (b), and ROS in the model a_3 , which tests H1 (c). The findings suggest that there is no significant relationship between CSR and financial return.

	H1 (a): ROA - CSR		H1 (b): ROE - CSR		H1 (c): ROS - CSR	
R ²	0.1626		0.0178		0.0500	
Adjusted R ²	0.1541		0.0082		0.0403	
F - test (<i>p-value</i>)	19.2184 < 0,0001		1.8470 0.1021		5.1842 0.0001	
Observations	501		516		499	
	Coefficient (<i>p-value</i>)	VIF	Coefficient (<i>p-value</i>)	VIF	Coefficient (<i>p-value</i>)	VIF
Intercept	0.2209 (<i>< 0,0001</i>)		0.3821 (0.0468)		0.1132 (<i>< 0,0001</i>)	
CSR	-0.0002 (0.2103)	1.1411	-0.0011 (0.5098)	1.1509	-0.0000 (0.8862)	1.1464
SIZE	-0.0146 (<i>< 0,0001</i>)	1.2058	0.0143 (0.5230)	1.1931	-0.0011 (0.6273)	1.2281
RISK	-0.0505 (0.0001)	1.1210	-0.3099 (0.2857)	1.1041	0.0063 (0.6745)	1.1290
AGE	0.0070 (0.0046)	1.1649	-0.0485 (0.0387)	1.1676	-0.0087 (0.0007)	1.1652
ADV	-0.0179 (0.7072)	1.0509	-0.6323 (0.0163)	1.0467	0.1514 (0.0127)	1.0351

Table 9.: Regression Results H1 (a), H1 (b), and H1 (c)

The results of the first regression model a_1 , which tests H1 (a) are the following: Firstly, 15.41% (adjusted R^2) of ROA could have been explained by independent variables (CSR, SIZE, RISK, AGE, and ADV). The F-test confirms that the overall regression results are significant even at the 1% level, and the model explains ROA better as an intercept-model only. The effect of CSR on ROA is negative and very small (- 0.0002), however, this relationship is not significant. Next, SIZE (- 0.0146) and RISK (- 0.0505) have a negative, and highly significant impact on ROA as expected. But contrary to my assumptions, the coefficient of AGE is slightly positive (0.007), and significant. Older firms have often less investment opportunities (Servaes and Tamayo, 2013), and grow slower than young firms (Loderer et al., 2017). Finally, the link between ADV and ROA is not significant. Since a higher CSR score does not lead to a higher ROA, H1 (a) could not have been confirmed.

The second model a_2 tests H1 (b) and provides the following results: Adjusted R^2 amounts to only 0,82%. What is more, the F-test resulted in a p-value of 10.21%, which means, the overall regression model is not significant and I cannot make any conclusions from this analysis. There could be more reasons for this result: Either the independent variables are not in an apparent relationship to the dependent variable, or an important variable that would define the relationship among other variables is missing in the model, or, there is a problem with the data (XLSTAT, 2018). I assume there might be two reasons that led to the insignificance of the model. Firstly, some researchers (Waddock and Graves, 1997 and Trebucq and d'Arcimoles, 2002) found ROE to have a small effect on CSR in comparison to other financial performance measures. Waddock and Graves (1997) test the relationship between CSR and three financial performance indicators, ROE, ROA, and ROS, and their ROE model is clearly the weakest one. Furthermore, they find no link between CSR and ROE, but find a significant connection between CSR and the other two indicators of financial performance. Likewise, Trebucq and d'Arcimoles (2002) also find the model that examines the link between CSR and ROE to be weaker than models with other measures of financial performance. The second reason for the insignificance of this model might lie in ROE itself. Equity values I collected from the Compustat database are quite volatile, and what is more, several values (17) are negative. When I dropped the observations with negative equity, the results improved considerably. The F-test, and hence the whole model became significant, and adjusted R^2 increased to 2.6%. However, the effect of CSR on ROE still remained insignificant. What regards the control variables, SIZE and ADV were significantly and negatively related to ROE, and all other controls had an insignificant impact on ROE. For all these reasons, hypothesis H1 (b), which says CSR has a positive effect on ROE, could not have been confirmed¹¹.

Finally, the third regression model a_3 analyzes H1 (c), the relationship between CSR and ROS. Adjusted R^2 equals 4.03%, so the model does not have such good explanatory power as the model a_1 . However, the F-test is significant at the 1% level which means that the

¹¹ This result was supported by the robustness test, too. The model became significant when SIZE was measured as the natural logarithm of the number of employees, however there was still no significant relationship between CSR and ROE. See section 4.3.3.1. for more information.

overall regression model has some validity. Similarly as in the first model a_1 , the impact of CSR on ROS is not significant. In addition, SIZE and RISK are not significantly related to ROS either. On the contrary, the relationship between AGE and ROS is significantly negative (- 0.0087) as expected. Furthermore, the ADV coefficient is positive (0.1514) and significant as assumed. Thus, H1 (c) could not have been confirmed either, since the link between CSR and ROS is not significant.

ROA seems to be the most suitable financial performance measure for this analysis since the model a_1 has the best explanatory power. However, this model contains three variables (ROA, SIZE, RISK) that include total assets in their formula. The results suggest that my concerns about the possibly biased relationship among these variables might have been confirmed. The variables SIZE and RISK are significant only in the a_1 model, where ROA is the dependent variable. The robustness test in chapter 4.3.3.1. should reveal if ROA is really the best book-value based measure of financial performance for this study, or if the results are biased by the use of total assets in the dependent, and the two independent variables.

4.3.2. Results: CSR and Firm Value (H2)

Table 10. depicts the results of the three regression models (b_1 , b_2 , and b_3) that test the impact of CSR on firm value. Tobin's Q is used as the dependent variable in all three models. The main independent variable is CSR in the model b_1 , which tests H2 (a), the environmental score (ENV) in the model b_2 , which examines H2 (b), and the social score (SOC) in the model b_3 , that tests H2 (c). The results suggest that there is a small negative relationship between CSR and firm value.

The results for H2 (a) are the following: Tobin's Q is explained by independent variables by 17.78%. The F-test shows that the overall validity of the model is satisfactory. CSR is significantly (at the 1% level) and negatively related to Tobin's Q, but the relationship is rather weak (- 0.0132). Similarly, SIZE also has a negative and significant impact on Tobin's Q (- 0.3221). Next, the coefficients for RISK, AGE, and ADV are not significant. And lastly, the relationship between Tobin's Q and SG is positive (0.9973) and significant as expected.

Since a higher CSR score leads to a lower Tobin's Q, the hypothesis H2 (a) could not have been confirmed.

	H2 (a): Tobin's Q - CSR		H2 (b): Tobin's Q - ENV		H2 (c): Tobin's Q - SOC	
R ²	0.1884		0.2093		0.1671	
Adjusted R ²	0.1778		0.1990		0.1561	
F-test	17.7960		20.2095		15.3091	
(p-value)	< 0,0001		< 0,0001		< 0,0001	
Observations	467		465		465	
	Coefficient (p-value)	VIF	Coefficient (p-value)	VIF	Coefficient (p-value)	VIF
Intercept	5.5523 < 0,0001		5.3151 < 0,0001		5.7418 < 0,0001	
CSR/ENV /SOC	-0.0132 0.0008	1.1486	-0.0112 0.0001	1.2875	-0.0105 0.0200	1.1087
SIZE	-0.3221 < 0,0001	1.1475	-0.2967 < 0,0001	1.3379	-0.3606 < 0,0001	1.1650
RISK	-0.5292 0.0769	1.0056	-0.6940 0.0134	1.1183	-0.3454 0.2374	1.0978
AGE	0.1029 0.0541	1.1850	0.0850 0.0985	1.1134	0.0968 0.0742	1.1539
SG	0.9973 0.0244	1.0389	0.9196 0.0297	1.0435	0.9581 0.0289	1.0415
ADV	1.4391 0.1502	1.0458	1.4820 0.1349	1.0470	1.6080 0.1087	1.0450

Table 10.: Regression Results H2 (a), H2 (b), and H2 (c)

The second model b₂ shows the results for H2 (b), the relationship between Tobin's Q and the environmental engagement: Adjusted R² is slightly larger (19.9%) in this model than in the model b₁ which analyzes the overall CSR score. The model has a better explanatory power than an intercept-only model, since the F-test is significant at the 1% level. ENV has a negative and significant (at the 1% level) link to Tobin's Q (- 0.0112). SIZE (- 0.2967) and RISK (- 0.6940) also affect Tobin's Q significantly and negatively as previously expected.

The coefficient of SG is significantly positive (0.9196), and AGE and ADV are again not significantly related to Tobin's Q. The hypothesis H2 (b) cannot be confirmed because the environmental engagement is found to be in a slightly negative relationship to Tobin's Q.

The b_3 model shows the following findings for H2 (c), link between Tobin's Q and the social engagement: The dependent variable, Tobin's Q is explained by 15.61% by the model. The F-test, and hence the model is significant at the 1% level. The SOC variable is significantly (at the 1% level) negatively related to Tobin's Q, even though the effect is quite small again (- 0.0105). SIZE has a negative and significant relationship with Tobin's Q (- 0.3606), and SG a significantly positive link (0.9581). Finally, the control variables RISK, AGE, and ADV are not significantly related to Tobin's Q. Because the social score is found to have a small, but negative impact on firm value, H2 (c) could not have been confirmed either.

These results also suggest that environmental actions have a slightly bigger negative effect on the firm value than social actions. Moreover, the negative relationship between RISK and Tobin's Q becomes significant and larger with ENV in the model. This change also contributes to the overall better fit of 19.9% in the model b_2 .

4.3.3. Results of the Robustness Test

I performed a robustness test on all six models. The main aim of this test is to find out, if variables which contain the same component in their formula (total assets in RISK, SIZE, ROA, and Tobin's Q; and net sales in ROS, ADV, and SG) do not bias the regression models. Therefore, other measurement method was applied for SIZE, RISK, and ADV. The results of this test show that the different measurement approach indeed affects the relationships among variables. However, the overall findings are not affected in an essential way. The link between CSR and financial return, as well as between CSR and firm value is still found to be not significant or slightly negative.

4.3.3.1. Robustness Test: CSR and Financial return (H1)

Table 11. depicts the results of the robustness test for H1 (a), H1 (b), and H1 (c), which concern the relationship between CSR and financial return.

	H1 (a): ROA - CSR		H1 (b): ROE - CSR		H1 (c): ROS - CSR	
R ²	0.0592		0.0673		0.0872	
Adjusted R ²	0.0495		0.0581		0.0779	
F-test	6.1242		7.3556		9.4196	
(p-value)	< 0,0001		< 0,0001		< 0,0001	
Observations	501		516		499	
	Coefficient (p-value)	VIF	Coefficient (p-value)	VIF	Coefficient (p-value)	VIF
Intercept	0.1325 < 0,0001		0.2853 0.0114		0.1095 < 0,0001	
CSR	-0.0004 0.0446	1.1266	-0.0028 0.2299	1.1518	0.0001 0.6578	1.1374
SIZE	-0.0050 < 0,0001	1.1177	0.0973 0.0197	1.2185	-0.0049 0.0097	1.2144
RISK	-0.0000 0.9035	1.0007	-0.3440 0.1485	1.0196	0.0076 0.6052	1.0199
AGE	0.0049 0.0431	1.1281	-0.0718 0.0103	1.1564	-0.0069 0.0041	1.1542
ADV	-0.0532 0.3080	1.1054	0.0287 0.8768	1.1362	0.1318 0.0023	1.1333

Table 11.: Regression Results of the Robustness Test for H1 (a), H1 (b), and H1 (c)

In the first model a₁, which tests H1 (a), SIZE is measured as the natural logarithm of the number of employees, and RISK is measured as total debt divided by total equity. Adjusted R² drops to 4.95% in comparison to 15.41% in the original model. The result of the F-test is also smaller, but still significant at the 1% level. The coefficient of CSR is slightly negative

(- 0.0004) as in the initial model, however, its p-value becomes narrowly significant (0.0446) at the 5% level. SIZE remains significantly and negatively related to ROA, but the relationship between RISK and ROA is not significant when RISK is measured as total debt to total equity. This finding is not that surprising, since total assets are the denominator of both variables, ROA and RISK in the original model.

In the second model a_2 , which tests H1 (b), SIZE is measured as the natural logarithm of the number of employees. Adjusted R^2 increases to 5.81% in comparison to 0.81% in the original regression. The F-test also improves, and the whole model becomes significant at the 1% level. However, the CSR coefficient still remains not significant. In contrast to the original model, SIZE becomes positively and significantly related to ROE. The change in SIZE also affects ADV, which becomes positive, but not significant.

In the third model a_3 , that tests H1 (c), SIZE is measured as the natural logarithm of the number of employees, and ADV is measured as advertising expenditures divided by total operating expenditures. Adjusted R^2 increases to 7.79% compared to 4.03% in the initial model, and the significance of the overall regression also improved. The relation between ROS and CSR still remains not significant. The coefficient of SIZE stays negative, but becomes significant when measured as the natural logarithm of the number of employees. Finally, ADV continues to be significantly and positively related to ROS.

To sum up, the relationship between CSR and ROE and between CSR and ROS turns out to be insignificant in the original analysis as well as in the robustness test. Interestingly, the link between CSR and ROA was insignificant in the initial model, too, but becomes significantly negative in the robustness test (- 0.0004). Furthermore, the model a_3 , which examines the impact of CSR on ROS, has the greatest explanatory power when SIZE, RISK, and ADV are measured in a different way. This result suggest that ROA might not be the most suitable book-value based measure of financial performance in this analysis.

4.3.3.2. Robustness Test: CSR and Firm Value (H2)

Table 12. provides the results for the robustness test for H2 (a), H2 (b), and H2 (c), which regard the relationship between CSR and firm value.

	H2 (a): Tobin's Q - CSR		H2 (b): Tobin's Q - ENV		H2 (c): Tobin's Q - SOC	
R ²	0.1277		0.1651		0.0905	
Adjusted R ²	0.1163		0.1542		0.0786	
F-test	11.2235		15.0981		7.5996	
(p-value)	< 0,0001		< 0,0001		< 0,0001	
Observations	467		465		465	
	Coefficient (p-value)	VIF	Coefficient (p-value)	VIF	Coefficient (p-value)	VIF
Intercept	2.3454 < 0,0001		2.3129 < 0,0001		1.8256 < 0,0001	
CSR	-0.0206 < 0,0001	1.1564	-0.0217 < 0,0001	1.1696	-0.0051 0.2355	1.0801
SIZE	0.1765 < 0,0001	1.1683	0.1921 < 0,0001	1.2058	0.1645 < 0,0001	1.1396
RISK	0.0006 0.5382	1.0125	0.0006 0.6251	1.0131	0.0008 0.3013	1.0107
AGE	0.0051 0.9225	1.1387	0.0141 0.7813	1.1143	-0.0570 0.2658	1.1231
SG	1.3507 0.0047	1.0382	1.2039 0.0081	1.0380	1.4413 0.0038	1.0278
ADV	2.1453 0.0021	1.1136	2.2131 0.0014	1.1126	2.3254 0.0007	1.1162

Table 12.: Regression Results of the Robustness Test for H2 (a), H2 (b), and H2 (c)

In the robustness test of all three models that test H2, SIZE is measured as the natural logarithm of the number of employees, RISK is measured as total debt divided by total equity, and ADV is measured as advertising expenditures divided by total operating expenditures.

Only 11.63% of Tobin's Q could be explained by the model b_1 , which tests H2 (a), whereas the original model explains 17.78%. The F-test stays significant at the 1% level. Similarly as in the initial model, CSR is negatively linked to Tobin's Q, and significant even at the 1% level. Surprisingly, the coefficient of SIZE becomes significantly positive when measured as the natural logarithm of total employees. Similarly, ADV is also significantly positively related to Tobin's Q when measured as advertising expenditures divided by total operating expenditures. On the other hand, the coefficient of RISK stays not significant as in the initial regression model.

In the model b_2 , which tests H2 (b), adjusted R^2 declines to 15.42%, compared to 19.9% of the original regression. The model is highly significant at the 1% level. The relationship between ENV and Tobin's Q continues to be negative and significant at the 1% level. The coefficient of SIZE changes from negatively significant to positively significant. In comparison to the initial model, RISK becomes not significant when measured as total debt divided by total equity. Moreover, ADV becomes significantly positive when measured as the relation of the advertising expenditures to the total operating expenditures.

In the last model b_3 , which tests H2 (c), adjusted R^2 declines to 7.86% in comparison to 15.61% of the initial regression model. The F-test remains to be significant at the 1% level. Surprisingly, the negative link between SOC and Tobin's Q is found to be not significant in the robustness test. SIZE becomes significantly positive, and ADV remains significantly and positively related to Tobin's Q as in the original model. Finally, the coefficient of RISK stays not significant.

To sum up, whereas the overall relationship between CSR and Tobin's Q and between ENV and Tobin's Q stays significantly negative in the robustness analysis, the link between SOC

and Tobin's Q becomes insignificant with different measures for SIZE, RISK, and ADV. These results confirm the outcomes of the initial H2, that the environmental actions have a larger negative impact on Tobin's Q than the social actions.

5. Conclusion and Discussion

The aim of this thesis is to explore the relationship between CSR and financial performance in consumer discretionary companies. More specifically, the effect of CSR engagement on four different performance indicators, ROA, ROE, ROS, and Tobin's Q, is measured. In addition, I also analyze the impact of the individual CSR components (social and environmental engagement) on firm value. The level of CSR, social, and environmental engagement is measured with the help of Thomson Reuters ESG scores.

To sum up the overall results, the involvement in CSR activities does not seem to have a positive effect on the financial performance in consumer discretionary firms. CSR is mostly not significantly related to the indicators of financial return, and slightly negatively related to firm value.

The effect of CSR on the three financial return measures, ROA, ROE, and ROS is found to be not significant. Only the relationship between CSR and ROA provides a narrowly significant and a slightly negative result (- 0.0004) in the robustness test, when SIZE and RISK are measured differently¹². The models that assess the impact of CSR on firm value provide similar, but significant results. CSR is found to be significantly and slightly negatively related to firm value in all three models. Moreover, the environmental component of CSR is found to be more negatively related to Tobin's Q than the social component. The robustness test confirms these findings, with the exception of the link between SOC and Tobin's Q, which becomes insignificant when SIZE, RISK, and ADV are measured in

¹² SIZE was measured as the natural logarithm of the number of employees, and RISK was measured as total debt divided by total equity in the robustness test for H1 (a).

another way¹³. Thus, none of the six hypotheses could have been confirmed because I found a negative link between CSR and firm value, and a statistically insignificant relationship between CSR and financial return.

One possible explanation for the insignificant relationship between CSR and financial return is, that consequences of CSR activities might take longer to become evident. Financial return indicators reflect just a short-term result, but many firms undertake long-term CSR projects, whose benefits only appear gradually (Kang et al., 2010). What is more, CSR benefits often firstly occur as non-financial advantages, like risk reduction, or employee satisfaction (Kotler et al., 2012). It might take some time until these non-financial advantages will be reflected in the financial performance of a firm. On the other hand, the slightly negative link between CSR and firm value, that resulted from my analysis, should additionally reflect the long-term effect of CSR on financial performance (Kang et al., 2010). Shareholders can assume a certain earnings potential and a future impact of CSR activities on the firm, and price it accordingly (Busch and Hoffmann, 2011).

There are various possible reasons for the lack of a positive impact of CSR on the financial result in the consumer discretionary sector. Firstly, consumers are not always ready to support CSR, even though many of them indicate they want companies to behave responsibly. There is a relatively large discrepancy between what customers say they want to do, and what they actually do. 87% of US-residents claimed they would like to purchase a socially, or environmentally responsible product, however, only 55% of the respondents said they have actually done so in the last 12 months (Cone Communications, 2017). Moreover, a few customers might find too much CSR engagement inconvenient. For example, supermarkets sometimes directly ask buyers to donate money, which can some people perceive as annoying, and therefore decide to shop somewhere else (Felten, 2010).

¹³ SIZE was measured as the natural logarithm of the number of employees, RISK was measured as total debt divided by total equity, and ADV was measured as advertising expenditures divided by total operating expenditures in the robustness test for H2 (c).

Furthermore, every CSR project might lead to a different result in different firms. In order to achieve the highest possible benefit from CSR, managers need to have a good knowledge of the particular CSR activities to estimate their impact on the firm. It is also very important to adapt every CSR strategy to the general business strategy (Feng et al., 2017). CSR is still a relatively new phenomenon, and many companies need to customize CSR projects to their needs, or develop completely new CSR approaches, which can be a very difficult task (Kotler et al., 2012).

What is more, there are some limitations to this study. I assume a linear relationship between CSR and financial performance in this research, but it is possible that the impact of CSR is positive only under certain conditions. For example, Brammer and Millington (2008) find an incremental profit in companies that either do not invest in CSR at all, or undertake CSR activities excessively. This result suggests that only companies that keep the costs as low as possible and companies that can differentiate themselves from other companies with above average CSR investments, can gain a competitive advantage from CSR (Busch and Hoffmann, 2011). This problem could also affect the consumer discretionary sector which contains many firms that operate in competitive industries (Blokchin, 2018) and firms that use CSR as a differentiation strategy (Feng et al., 2017).

Finally, the value of CSR is very difficult to measure, and its costs and benefits are not always directly attributable to the specific CSR projects. Thomson Reuters is a globally recognized ESG information provider, however, the ranking uses only external data to evaluate the CSR activities of companies. Firms usually want to present their CSR engagement in the best light possible, and hence, the information provided to the public could be biased (Cho et al., 2012). Furthermore, many different factors, apart from CSR, affect the financial performance and the value of firms. In order to control for these factors, several independent variables were added to the model. However, a few control variables cannot capture all drivers of financial performance. Financial performance is determined by many internal and external factors, some of them are hardly measurable, and often not publicly available.

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Abstract

Even though researchers have been analyzing the relationship between Corporate Social Responsibility (CSR) and the financial performance of companies for around 60 years, the results are still very contradictory. It seems that the impact of CSR on financial performance varies across different types of companies. Therefore, this thesis examines the relationship between CSR and financial performance in firms that operate in the consumer discretionary sector. More specifically, I analyze the impact of CSR engagement (measured with the help of Thomson Reuters ESG dataset) on financial return (measured as ROA, ROE and ROS) and firm value (measured as Tobin's Q) in 80 consumer discretionary companies in the period 2009 to 2016. The results suggest that CSR is not significantly related to financial return, and has a slightly negative impact on the firm value of the examined companies. The negative effect was marginally bigger for the environmental component of CSR than for the social engagement. These results suggest that, contrary to my assumptions, CSR actions do not seem to affect the financial performance of consumer discretionary companies in a positive way.

Zusammenfassung

Obwohl Forscher die Beziehung zwischen Corporate Social Responsibility (CSR) und der finanziellen Leistung von Unternehmen seit rund 60 Jahren analysieren, sind die Ergebnisse immer noch sehr widersprüchlich. Möglicherweise sind die Auswirkungen von CSR auf die finanzielle Leistung von Unternehmen zu Unternehmen unterschiedlich. In dieser Arbeit wird daher die Beziehung zwischen CSR und der finanziellen Leistung von Unternehmen, die im Nicht-Basiskonsumgüterbereich tätig sind, untersucht. Mehr spezifisch, die Auswirkungen des CSR-Engagements (gemessen mit Hilfe des ESG-Datensatzes von Thomson Reuters) auf die Rendite (gemessen als ROA, ROE und ROS) und den Unternehmenswert (gemessen als Tobin's Q) in 80 Nicht-Basiskonsumgütergesellschaften in der Periode 2009 bis 2016 wurden analysiert. Die Ergebnisse deuten darauf hin, dass CSR keinen signifikanten Einfluss auf die Rendite hat und den Unternehmenswert der untersuchten Unternehmen leicht negativ beeinflusst. Der negative Effekt der CSR Umweltkomponente war geringfügig größer als der des sozialen Engagements. Entgegen der Erwartungen zeigen diese Ergebnisse, dass CSR-Maßnahmen die finanzielle Leistung von Unternehmen des Nicht-Basiskonsumgüter Sektors nicht positiv beeinflussen.