Does CSR earn you trust?

A study on the influence of corporate social responsibility performance on financial analysts' trust for companies listed on the Nasdaq OMX Stockholm.

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Abstract

Our study aims to investigate if companies' corporate social responsibility (CSR) performance influence financial analysts' trust for the companies, proxied by the perceived trustworthiness of companies' top management. The study covers listed firms on the Nasdaq OMX Stockholm during the years 2010-2014. Research in related areas has provided contradictory results on the view of CSR, and as our study presents new insights in a scarcely researched field it hypothesises that CSR performance should positively influence the trustworthiness of top management. Results however indicate a negative relationship between CSR and trust, suggesting that financial analysts still consider CSR an agency cost and therefore trust high CSR performing companies less.

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1. Introduction

Companies' corporate social responsibility (CSR) performance has become an increasingly popular subject for discussion and gained much recognition in modern studies. Earlier research has mainly been focusing on the relationship between CSR engagement and financial performance, showing contradicting results ranging from reduced cost of capital to CSR being perceived as an agency cost lowering firm value. However, as CSR initially was utilized as a counterpoise to the widespread mistrust towards how management teams ran their companies after world known scandals such as Enron and WorldCom (Arvidsson, 2010), it is of interest to extend the scope and investigate; to what extent do financial analysts evaluate companies' top managements' trustworthiness based on CSR performance?

CSR as a strategy has mainly been used to soften the public opinion and rebuild society´s trust in companies and their management as well as a risk-mitigating strategy (Arvidsson, 2010). It could also work as an insurance-like protection for important relationships with various stakeholders (Ioannou & Serafeim, 2014), who are considered to be of equal importance for a company's performance as shareholders in line with the stakeholder theory (Freeman et al., 2001). Subsequently, as CSR performance might act as a quality indicator for the management's overall performance (Nilsson, 2008), engaging in CSR could help build trust for a company's top management team, who are responsible for the company's business and handles its daily operations.

As the amount of non-financial information has gained recognition in the financial society, investment analysts have become increasingly interested in CSR disclosure (Eccles, Krzus & Serafeim, 2011). Earlier studies have shown that CSR engagement tend to make companies disclose more information, which reduces information asymmetries and make them more accountable in their engagement with stakeholders (Eccles et al., 2011). According to The Swedish Society of Financial Analysts (SFF), sustainability factors are increasingly considered in sensitivity analyses and risk evaluations supporting analyst forecasts, and recommendations regarding firms with high CSR scores are now more positive (SFF, 2008). This suggests that CSR is part of company evaluations and may influence financial analysts' trust for companies.

Sweden is considered one of the first adopters of CSR and ranked the market leader among 108 countries in rewarding business practices that deliver improved social, environmental and economic outcomes (AccountAbility, 2007; Arvidsson, 2010). Furthermore, 90% of Swedish companies provide sustainability information or reports in addition to their annual reports (EU Sustainable Reporting, 2009); hence CSR information is readily available for financial analysts' evaluations. Consequently, Sweden is considered a good market for research concerning how recognized and accepted non-financial information is in the financial society.

Our study makes several contributions to existing research. First, our findings contribute to research on CSR and the components of analyst valuation. Most of the previous research has been limited to the relationship between CSR and profitability as well as analysts' stock valuations, while this study extends the scope to include the relation between CSR and financial analysts' trust. Secondly, this study analyses to what extent the nature of the relationship diverge across different industries on the Swedish market. Lastly, our study makes some key contributions to the literature on how non-financial information is perceived in the investment society. Noteworthy is that our study aims to investigate the relation between CSR and trust, but not provide evidence for how the relationship comes about. However, some reflections and possible explanations for the study's results are presented.

1.1 Purpose of study

The purpose of this study is to investigate whether CSR performance affects financial analysts' trust for companies' top management. This is interesting to investigate as it provides a deeper understanding of why companies engage in CSR. Opinions regarding companies' responsibilities in society deviate, which creates an intriguing research purpose. Hence, our study aims to provide an answer to the question:

"Does a firm's CSR performance affect financial analysts' trust for its top management?"

1.2 Research boundaries

This study investigates Swedish firms listed on the Nasdaq OMX Stockholm. The companies' CSR scores are based on risk ratings provided by the GES Investment Services, including human rights and environmental dimensions of CSR. The corporate governance dimension of CSR is omitted from our study due to shortage of data. Financial analysts' trust for companies' top management are based on data from Regi Research & Strategi AB, where sell-side analysts have been asked to rate the top managements' trustworthiness.

The sample has been limited to companies that appear in both of our datasets. Banks and insurance companies have been excluded from the study since these differ materially in their business model and financial reporting from other companies in the sample. Our sample period has been limited to the years 2010-2014, as these are the years covered by our trust data.

1.3 Outline

The remainder of this thesis is outlined as follows: section 2 presents the theoretical framework and previous research on the development of financial analysts' perception and valuation of CSR. In section 3, test logics and the general hypotheses are presented. The chosen research method as well as sample and variables are stated and motivated in section 4. In section 5, the test results are presented and analysed. Sensitivity analyses and robustness tests are performed and discussed in section 6. Lastly, conclusions of the research are presented together with suggestions for further research on the subject in section 7. References and Appendix then follow.

2. Theoretical framework

The following chapter presents the theoretical framework and previous research in related fields, which motivate and provide a base for our study of the relationship between CSR performance and financial analysts' trust.

2.1 The emergence of CSR in light of the shareholder and stakeholder theories

"A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" – The EU Commission's definition of CSR (2001).

The traditional opinion on how to manage an organization has been dominated by the shareholder theory. The theory argues that an organization exists only for the owners, the shareholders, and that the purpose of the organization is to maximize their value. In contrast, the upcoming stakeholder view argues that a company exists in order to satisfy a broader set of groups, the stakeholders. Stakeholders both benefit from and contribute to the organization, and are defined as owners, customers, employees, suppliers, lenders and society (Anthony et al., 2014). Through their choice of action, stakeholders may have the same amount of power regarding the survival of a company as the shareholders, according to proponents of the stakeholder view. Based on the ownership structure, the shareholder theory has dominated the US as well as UK, while continental Europe, Scandinavia and Japan have been pioneers of the stakeholder theory. The shareholder view has been criticized for being short-term orientated, since in the long run, some of the stakeholders might become shareholders and execute direct power over the company. (Anthony et al., 2014).

In light of the shareholder theory, CSR performance has been perceived as an agency cost since directors act contradictory to the main purpose of the organization, which is to create value for the shareholders. Friedman (1962) famously cited: "*There is one and only one social responsibility of business [...] to use its resources and engage in activities designed to increase profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception and fraud*". The agency logic resulted in investors and analysts assessing CSR as a reallocation of compensation from shareholders to other stakeholders (Ioannou & Serafeim, 2014). However, Freeman et al. (2001) as well as

Porter and Linde (1995) argue that fulfilling the needs of other stakeholders than the owners could create value for shareholders. Freeman et al. (2001) argues that the most troubling issue of CSR is the fact that it is being considered an add-on to the regular business, something managers engage in if they can afford it. If companies today ignore the interconnections between economic and social forces, their processes and systems will fail to explain and forecast the business world as it is today.

2.2 Value relevance of CSR performance
The debate regarding the profitability of CSR is on the continuum along with questions regarding the causality between CSR and good financial performance (El Ghoul et al., 2011). Does CSR itself give rise to superior profitability, or is it rather that good financial performance allows companies to engage in CSR? Researched areas including the capital market's perception, investor base size and cost of capital provide a somewhat clearer picture concerning the financial contributions of CSR.

Prior research examining the value relevance of non-financial information (e.g. environmental, social and governance (ESG)) has mainly been dominated by accounting-based or market-based dimensions, while little focus have been placed on the capital market participants' appreciation of CSR (El Ghoul et al., 2011). However, Semenova et al. (2010) state that financial information does not alone explain the variation in stock prices, but environmental information not included in financial reports are also considered by the capital market. Porter and Linde (1995) as well as Eccles et al. (2011) argue that high CSR firms outdo low CSR firms in profitability, since they establish more sophisticated product and process innovations, reliable supply chains and manage to attract more superior human capital. Furthermore, CSR performance can indirectly generate better financial performance through positive relations with different stakeholders (Semenova et al., 2010). As CSR relates to the stakeholder theory, Dhaliwal et al. (2012) argues that CSR performance is more likely to affect firms' capital market performance in stakeholder-oriented countries.

Companies engaging extensively in CSR tend to voluntarily disclose more non-financial information (Eccles et al., 2011). Using CSR disclosure as a communication tool can enhance firm transparency, which decreases information asymmetries and attracts investors (Semenova et al., 2010; El Ghoul et al., 2011). Approximately 10% of all capital administered in Europe and the US are placed under Social Responsible Investments (SRI) criteria, so in

order to access these investors, companies need to fulfil the CSR requirements (SFF, 2008). Therefore, firms engaging more in CSR can generate a bigger investor base that is more dedicated and often have a long-term investment horizon (El Ghoul et al., 2011). This view is contradicted by Eccles et al. (2011), who argue that CSR decreases the investor base due to the lower return. However, CSR reduces the perceived riskiness of the firm and could hence lower the cost of capital, which is the required rate of return given the market's perception of a firm's riskiness. The reduction in cost of capital can be explained by CSR engagement resulting in more stable investors, accountable employee relations, environmental strategies and the mitigation of controversies (El Ghoul et al., 2011; Eccles, Krzus & Serafeim, 2011).

Since there has been contradicting results concerning CSR and profitability, previous research has also found support for the cost-centred school, which argues that sustainability investments represent increased costs and lower firm value (Hassel et al., 2005). Additionally, Konar and Cohen (2001) find supporting evidence that in high-risk industries, the intangible asset value measured by Tobin's Q correlates negatively with sustainability performance.

2.3 Financial analysts' perception and valuation of CSR

Previous research on the work of financial analysts has mainly been dominated by the relationship between their stock valuations and companies' CSR performance (Ioannou & Serafeim, 2015; Lys et al., 2015), focusing on the financial relevance of CSR. Some studies have extended the scope to include security analysts (Nilsson, 2008), arguing that CSR engagement is more relevant as a risk-mitigating strategy. In order to investigate if CSR performance affects top managements' trustworthiness in the eyes of financial analysts, it is important to acknowledge to what extent CSR performance is a component in analysts' valuation process in general and how it is valued.

Financial analysts are considered to be the experts of assessing the future success of companies (Schipper, 1991). By being the primary users of financial information, they act as information intermediaries, closing the information asymmetry gap between management teams and investors. Nilsson (2008) argues that sustainability information is value-relevant if it helps analysts in forecasting future cash flows and evaluating investment risk. Additionally, the author states that CSR performance could act as a proxy for "overall management skills", which would indirectly affect the company's value through sustainable corporate governance. Recommendations published by SFF support the relevance of CSR information in valuation

and state that the sensitivity analyses and risk evaluations supporting analysts' forecasts will increasingly be determined by environmental factors (SFF, 2000).

In the early 2000s, qualitative research findings concluded that environmental performance, which is part of CSR, receives little attention and is of less importance than other valuation factors among financial analysts and the investment society (Hunt & Grinnell, 2004; Fayers et al., 2000; Mills et al., 2001). Additionally, CSR was mainly considered an agency cost in line with the shareholder theory and agency logic, and contributed to pessimistic recommendations (Ioannou & Serafeim, 2015). However, as CSR ratings have become more standardized and information about CSR initiatives easier to obtain, the financial market, and investment analysts in particular, have become increasingly interested in non-financial information (Eccles, Krzus & Serafeim, 2011). Lou et al. (2015) provide supporting evidence in a recent study that analysts are in fact using corporate social performance as a factor for evaluation of stock recommendations, and the emphasis on CSR in corporate communication has increased (Arvidsson, 2010). Furthermore, as the stakeholder view has emerged and received much attention in recent time and the agency logic is fading, analysts' perception of CSR has throughout a period of 15 years changed from a negative stance to a more positive perspective, regarding CSR in line with the stakeholder view (Ioannou & Serafeim, 2015).

In addition to the weakening of the agency logic, the maturation of SRI has affected the perception of CSR in the investment community. SRI has developed from a niche investment with neglected economic importance to an investment philosophy incorporated by large investment institutes (Sparkes & Cowton, 2014). Paine (2003) furthermore states in her book that "*whether or not investors themselves were directly concerned about corporate conduct, they recognized that others' concerns can translate into financial consequences for the companies they invest in*". This suggests that financial analysts need to consider CSR in company evaluations as it impacts company performance.

2.4 CSR and trust

"*Willingness to rely on a partner in whom one has confidence*" – Tyler and Stanley's definition of trust (2007).

After the millennium transition, a crisis of confidence has dominated the financial world. Scandals in the US and Europe, which gave rise to the Sarbanes Oxley Act and The Swedish

Corporate Governance Code, have shown the need for stricter regulations concerning ethical behaviour. Furthermore, the volatile stock prices linked to the "bubbles" added on to the disbelief for companies and the market in total (SFF, 2008), while corporate scandals in the social, ethical and environmental platform generated a specific mistrust towards management teams (Arvidsson, 2010).

According to SFF's recommendations concerning corporate responsibility, companies established strategies to take greater responsibilities with regard to their stakeholders as an approach to turn the disbelief around. CSR has been used to increase the trustworthiness of the financial world in general as well as of companies individually, and is often also used to build and improve reputation (SFF, 2008). In line with these explanations, Ioannou and Serafeim (2014) state that CSR can be used as an insurance-like protection for the relationship-based intangible assets of a company or as a risk-mitigation strategy. Arvidsson (2010) further argues that companies rather engage in CSR to avoid negative impact, than by a will to act in accordance with what is believed to be the right thing to do.

Companies without a well-established system concerning CSR policies leap greater risk of being affected by scandals that hurt company value (SFF, 2008), and might lose their "license to operate" due to mistrust in the company and its operations. Concrete actions such as boycotts, owners selling their shares, staff turning in their notion or revoked collaborations, could follow (SFF, 2008). Besides, in countries with high trust, CSR reports work as an indicator of firms' ethical behaviour (Mazzi et al., 2016), particularly among top management. Additionally, Guiso et al. (2015) state that firm's performance is better when the top management is perceived as trustworthy and ethical.

Since Sweden is a stakeholder-orientated country with high trust and a pioneer in CSR and environmental and societal issues (Mazzi et al., 2016), it is interesting to investigate the association between CSR performance and analysts' trust for top management teams in Sweden. However, as recent as March 2016, Morningstar, an investment resource specialized in fund investment, launched a new ranking system for funds based on their sustainability profile (Svenska Dagbladet, 2016). This might indicate that there is an on-going progress in the financial world regarding the perception of CSR and its role in the analyst and investment society.

2.5 Industry variation in the importance of CSR performance

Previous research concludes that CSR is of interest to financial analysts if it is value creating for the company (Nilsson, 2008). SFF (2008) indicates two ways of CSR increasing long-term value; 1) through market opportunities or 2) as a risk-mitigating strategy. Earlier research has identified two subgroups where CSR could be of high importance for value creation, and thus theoretically be of greater interest to financial analysts.

In line with Freeman et al. (2001), Porter and Linde (1995) argue that CSR could act as a competitive advantage creating value for companies engaging in it. Continuously, Eccles et al. (2011) suggest that CSR engagement is of more importance in business-to-consumer (B2C) industries and in industries where competition relies heavily on brand and reputation. This since the individual consumer value CSR in purchasing decisions and consider it a product attribute (Servaes & Tamayo, 2013).

Furthermore, Nilsson (2008) identifies that in industries with substantial environmental impact, such as the oil and gas industry, sustainability information plays a big role in the valuation process. Firms operating in heavy industries have in the past experienced great conflicts with communities as well as public scrutiny (Eccles et al., 2011), and as a risk-mitigating strategy, CSR could increase resource efficiency and minimize environmental impact and conflicts with the local community. Consequently, companies could benefit financially from high CSR performance through commercial benefits, avoidance of legal procedures and a more secure license to operate (SFF, 2008; Eccles et al., 2011).

3. Test logics and general hypotheses

Analysts have previously been argued to consider CSR as an agency cost (Ioannou & Serafeim, 2014), but recent research indicates that they have now shifted focus to a more stakeholder-oriented view. Companies engaging in CSR tend to disclose more non-financial information than their counterparts, which reduces information asymmetry issues and increases transparency (El Ghoul et al., 2011). Moreover, these firms are also claimed to be more long-term oriented and accountable in their engagement with stakeholders (Eccles et al., 2011). Put together, these features should influence stakeholders' trust for companies, and so also financial analysts' trust for the companies and their top management. Assuming that greater CSR engagement generally contributes to higher CSR performance, we hypothesise the following:

Hypothesis 1: There is a positive association between a company's corporate social responsibility performance and financial analysts' trust for the company's top management.

After investigating the overall relationship between CSR and financial analysts' trust for top management in our first hypothesis, the second hypothesis aims to explore how the relationship differs between industries through a sector analysis. Eccles et al. (2011) identified that high CSR firms tend to outperform low CSR firms in the B2C industry and industries where brand and reputation are primary drivers of competition. Furthermore, they recognize that companies in the heavy industry sector, extracting large amounts of natural resources, would be under societal and legal pressure to act environmentally responsible. In line with this, Nilsson (2008) argues that these firms' environmental disclosures are of interest for many financial analysts as CSR performance is linked to firm value. Hence we predict a more positive association between CSR performance and financial analysts' trust for companies' top management in both the B2C industry and the heavy industry sector. In an attempt to investigate whether there is a difference in trust between these groups, the second hypothesis is as follows:

Hypothesis 2: There is a more positive association between companies' corporate social responsibility performance and financial analysts' trust for the companies' top management in (a) heavy industry sectors than non-heavy industry sectors and (b) business-to-consumer industries than business-to-business industries.

4. Method

4.1 Sample

From the companies listed on the Nasdaq OMX Stockholm, our sample was initially limited to the companies present in both the datasets of CSR ratings and trust data. Banks and insurance companies were excluded from the sample since they differ materially in their business model and financial reporting from other companies. Thereafter, firm-year observations not covered by the GES Investment Services' risk ratings were omitted due to the lack of CSR ratings, and similarly observations without trust scores from the trust data were also excluded. Furthermore, to control for biases and dispersion in analyst trust, firm-year observations were required to have at least three analyst trust responses. At last, observations for which all control variables existed were kept. In order to maintain as large sample as possible, control variables missing in Datastream were complemented using the companies' annual reports. These selection criteria gave us a final sample of 90 companies, comprising 328 firm-year observations over the period 2010-2014. See Table 1 in Appendix A for the sample distribution.

4.2 Research method and statistical tests

4.2.1 Hypothesis 1

Original model

To investigate if companies' CSR engagement have an impact on financial analysts' trust for the top management teams, average trust responses are regressed on the CSR rating used as proxy for CSR performance and our control variables in an OLS regression. In order to control for the possibility of endogeneity, which causes causality between variables, firm- and year-fixed effects are included in the regression model by the use of dummy variables. This corrects for factors specific to a certain firm or year that could have an impact on analyst trust and are not included by the control variables incorporated in our model. The original regression model is as follows:

$$TRUST_{it} = \beta_0 + \beta_1\ CSR\ SCORE_{it} + \beta_2\ REPORTING\ QUALITY_{it} + \beta_3\ DISPERSION\ TRUST_{it}$$
$$+ \beta_4\ FAMILIARITY_{it} + \beta_5\ SIZE_{it-1} + \beta_6\ LEVERAGE_{it-1} + \beta_7\ PROFITABILITY_{it-1} +$$
$$\beta_8\ LIQUIDITY_{it-1} + FIRM + YEAR + u_{it}$$

Where:

TRUST: Financial analysts' average trust responses

CSR SCORE: CSR performance proxy

REPORTING QUALITY: Financial reporting quality proxy

DISPERSION TRUST: Standard deviation of analyst trust responses

FAMILIARITY: Proxy for analysts' familiarity with companies

SIZE: Natural logarithm of total assets

LEVERAGE: Debt-to-equity ratio

PROFITABILITY: Return on assets

LIQUIDITY: Current ratio

FIRM: Firm-fixed effects

YEAR: Year-fixed effects

i: Cross-sectional unit, firm

t: Valuation year

If the estimated coefficient β_1 is positive and statistically significant at the 10% level, the null-hypothesis is rejected.

$$H_1: \beta_1 > 0, H_0: \beta_1 \leq 0$$

Industry-fixed effects model

As factors influencing financial analysts' trust for a company's top management team are likely to be firm specific, firm-fixed effects are included in our original regression model. However, in order to investigate how much of these factors influencing trust that actually are firm specific and not affected by the industry in which a company operates, a regression using industry-fixed effects is performed. This illustrates the variation between firms in contrast to the variation within firms that firm-fixed effects provide. The industry-fixed effects regression model is as follows:

$$TRUST_{it} = \beta_0 + \beta_1 \ CSR \ SCORE_{it} + \beta_2 \ REPORTING \ QUALITY_{it} + \beta_3 \ DISPERSION \ TRUST_{it}$$
$$+ \beta_4 \ FAMILIARITY_{it} + \beta_5 \ SIZE_{it-1} + \beta_6 \ LEVERAGE_{it-1} + \beta_7 \ PROFITABILITY_{it-1} +$$
$$\beta_8 \ LIQUIDITY_{it-1} + INDUSTRY + YEAR + u_{it}$$

Where:

INDUSTRY: Industry-fixed effects

If the estimated coefficient β_1 is positive and statistically significant at the 10% level, the null-hypothesis is rejected.

$$H_1: \beta_1 > 0, \; H_0: \beta_1 \leq 0$$

Change in TRUST and CSR SCORE model

To explore the changing relationship between trust and CSR performance, a regression model estimating the change in *TRUST* in response to a change in *CSR SCORE* is used. The model makes use of the same control variables as before, as well as firm- and year-fixed effects.

$$\Delta TRUST_{it} = \beta_0 + \beta_1 \, \Delta CSR \, SCORE_{it} + \beta_2 \, REPORTING \, QUALITY_{it} + \beta_3 \, DISPERSION$$
$$TRUST_{it} + \beta_4 \, FAMILIARITY_{it} + \beta_5 \, SIZE_{it-1} + \beta_6 \, LEVERAGE_{it-1} + \beta_7 \, PROFITABILITY_{it-1} +$$
$$\beta_8 \, LIQUIDITY_{it-1} + FIRM + YEAR + u_{it}$$

Where:

ΔTRUST: Change in financial analysts' average trust responses from year *t* to year *t+1*.

ΔCSR SCORE: Change in CSR performance proxy from year *t* to year *t+1*.

If the estimated coefficient β_1 is positive and statistically significant at the 10% level, the null-hypothesis is rejected.

$$H_1: \beta_1 > 0, \; H_0: \beta_1 \leq 0$$

Change in all variables model

In order to refine our results even further, the yearly change is used for all main variables in the regression model. Firm-fixed and year-fixed effects are kept to control for unknown factors influencing trust.

$$\Delta TRUST_{it} = \beta_0 + \beta_1 \, \Delta CSR \, SCORE_{it} + \beta_2 \, \Delta REPORTING \, QUALITY_{it} + \beta_3 \, \Delta DISPERSION$$
$$TRUST_{it} + \beta_4 \, \Delta FAMILIARITY_{it} + \beta_5 \, \Delta SIZE_{it-1} + \beta_6 \, \Delta LEVERAGE_{it-1} + \beta_7 \, \Delta PROFITABILITY_{it-1}$$
$$+ \beta_8 \, \Delta LIQUIDITY_{it-1} + FIRM + YEAR + u_{it}$$

Where:

ΔREPORTING QUALITY: Change in reporting quality proxy from year *t* to year *t+1*.

ΔDISPERSION TRUST: Change in the standard deviation of analyst trust responses from year *t* to year *t+1*.

ΔFAMILIARITY: Change in analysts' company familiarity proxy from year *t* to year *t+1*.

ΔSIZE: Change in natural logarithm of total assets from year *t-1* to year *t*.

ΔLEVERAGE: Change in debt-to-equity ratio from year *t-1* to year *t*.

ΔPROFITABILITY: Change in return on assets from year *t-1* to year *t*.

ΔLIQUIDITY: Change in current ratio from year *t-1* to year *t*.

If the estimated coefficient β_1 is positive and statistically significant at the 10% level, the null-hypothesis is rejected.

$$H_1: \beta_1 > 0, H_0: \beta_1 \leq 0$$

4.2.2 Hypothesis 2

Sector analysis model

In order to investigate the relationship between CSR performance and financial analysts' trust for top management at a sector level, the companies have been manually divided into different industry groups according to the Industry Classification Benchmark (ICB), see Table 1 in Appendix A. Since many listed companies are parent companies, the classifications have considered the actual business concept of the companies rather than the specific function of the parent company. For the regressions, an interaction variable consisting of the *CSR SCORE* multiplied with a dummy variable named *INDUSTRY* is added. In the first regression, evaluating the association between CSR and trust for heavy industry companies, *INDUSTRY_a* takes the value of 1 for firms in the heavy industry sector and 0 for the remaining companies in the sample. For the second regression, *INDUSTRY_b* is computed to take the value of 1 for each firm in the B2C industry and 0 for companies in the business-to-business (B2B) sector.

If all control variables are thought to affect trust differently depending on industry belonging, interaction variables should be included in the regression model for all control variables. Since the control variables are not industry-specific, we hypothesize that they do not have different impacts on trust in the different groups. However, a F-test[3] is used to mathematically

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[3] $F = \frac{(SSE(R) - SSE)/R}{s_e^2}$ Reject H_0 if $F = \frac{(SSE(R) - SSE)/R}{s_e^2} > F_{R,n-K-R-1,\alpha}$ $H_0: \propto_1 = \propto_2 = \ldots = \propto_R = 0$

determine if interaction variables for the control variables should be included, showing that interaction variables should not be included. This since they provide no further explanation of the behaviour of the dependent variable beyond what the regression model without interaction variables provide. Hence, the regression model is as follows:

$$TRUST_{it} = \beta_0 + \beta_1\,CSR\;SCORE_{it} + \beta_2\,CSR\;SCORE_{it}*INDUSTRY_{a,b} + \beta_3\,INDUSTRY_{a,b} +$$
$$\beta_4\,REPORTING\;QUALITY_{it} + \beta_5\,DISPERSION\;TRUST_{it} + \beta_6\,FAMILIARITY_{it} + \beta_7\,SIZE_{it-1} +$$
$$\beta_8\,LEVERAGE_{it-1} + \beta_9\,PROFITABILITY_{it-1} + \beta_{10}\,LIQUIDITY_{it-1} + FIRM + YEAR + u_{it}$$

Where:

$INDUSTRY_a$: Dummy variable taking the value of 1 for heavy industry companies and 0 otherwise

$INDUSTRY_b$: Dummy variable taking the value of 1 for B2C companies and 0 otherwise

In this regression model with an interaction variable, the *CSR SCORE* coefficient for both groups being compared is ($\beta_1 + \beta_2*INDUSTRY$), where the dummy variable *INDUSTRY* takes the value of 0 or 1. Thus the coefficient for B2C and heavy industry companies is $\beta_1 + \beta_2$, while the coefficient for B2B and non-heavy industry companies is β_1. As β_2 represents the difference between the two groups being compared, the second hypothesis states: If the estimated coefficient β_2 is positive and statistically significant at a 10% level, the null hypothesis is rejected.

$$H_2:\ \beta_2 > 0,\ H_0:\ \beta_2 \leq 0$$

4.3 Measuring CSR

Risk ratings provided by GES Investment Services are used as proxy for CSR performance in our study. GES Investment Services is Northern Europe's leading research and service provider for Responsible Investment and has since 2005 provided risk ratings for companies on the Nasdaq OMX Stockholm, that evaluates risks in their handling of environmental, human rights and corporate governance issues (GES Investment Services, 2016)[4]. These ratings are based on international guidelines and assessed according to the United Nations' Principles for Responsible Investments (2016). Dialogues with firms, official firm documents, GES' partners, non-governmental organizations and media are used to establish the ratings and evaluating the companies' current methods and readiness for the future.

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[4] The information about GES Investment Services' risk ratings is collected from the company's website and from correspondence with the company itself.

The human rights aspect of the risk ratings measures the extent to which companies' relations with stakeholders are in line with internationally agreed human rights norms. Firms are evaluated on three categories: *i)* employees, comprising working hours, wages, diversity, child and forced labour, health and safety policies; *ii)* community, including policies and programmes regarding corruption and community involvement; and *iii)* suppliers, covering policies, programmes and reporting of supply chains and human rights. For the environmental aspect of the risk rating, companies' current performance and their preparation for future events are considered. The rating dimension is divided into two categories; *i)* performance, measuring changes in energy and water usage, waste management, greenhouse gases and emissions, use of hazardous substances and thirteen other criteria; and *ii)* preparedness, comprising environmental reporting and routines, strategy for renewable energy production, policies' extent and quality, and ten other criteria.

The score of every category is combined into an overall rating for each dimension, with the environmental dimension being given a score from 0 to 3 and the human rights dimension a score from 0 to 2. In order to compute an overall CSR performance score to be used in our regression model, the weighted average of the two scores are used to produce a percentage score. In the end of 2013, a corporate governance score was added to the risk rating that evaluates the extent to which companies adhere to relevant best practice on corporate governance. This new dimension has however been omitted from our study since it was not available during the entire sample period. As the analyst trust responses were collected throughout August to October each year during our sample period, the risk ratings from June for the years 2010-2014 have been used in our study. This to ensure the CSR ratings were available to the analysts by the time of the collection of trust responses.

4.4 Measuring trust

The trustworthiness of companies' top management teams on the Nasdaq OMX Stockholm is used as a proxy for company trust in our study. This trust score is based on data from Regi Research & Strategi AB where sell-side analysts have been asked to rate the top managements' trustworthiness on a scale from 1 to 10 (see Appendix B). Using the trustworthiness of companies' top management is a good proxy for company trust in relation to CSR performance, as companies engaging a lot in CSR tend to allocate much of the responsibility of this work to the top management team (Eccles et al., 2011). In addition, Nilsson (2008) suggests that CSR performance can act as a proxy for overall management

skills. Furthermore, in high trust countries such as Sweden, CSR reports often act as a credible indication of the management's ability to manage risks regarding social and environmental issues and behave in an ethical manner (Mazzi et al., 2016).

To control for dispersion in analyst trust and avoid biased outcomes resulting from relying on a single analyst's trust response for any company, at least three analyst responses were required for every firm-year observation. Those observations with two or less analysts asked were thus eliminated from our sample.

4.5 Control variables

In order to control for other variables than CSR performance that are likely to have an impact on analyst trust, several control variables are included in the regression model. As our study is among the first to investigate the relationship between analyst trust and CSR engagement, little research on suitable control variables exist. Therefore, our regression model includes variables that are hypothesised to have an impact on analyst trust or valuation.

As larger firms tend to have more analyst coverage, publish more information and incur a lower investor risk, *SIZE* (+)[5] is thought to have an impact on analyst trust. Furthermore should *LEVERAGE* (-), *LIQUIDITY* (+) and *PROFITABILITY* (+) also influence analyst trust as these are related to the financial performance and future prospects of the company.

The amount of previous recognition is argued to influence trust (SadrAra et al., 2011), which in turn is claimed to emerge from an on-going interaction between parties as they learn more about each other (Gulati, 1995). This motivates the inclusion of a measure of analysts' prior familiarity with companies as a control variable, and hence analyst responses to the question "*How long have you been covering this company?*" from our trust database are used as proxy for *FAMILIARITY* (+). Continuously, financial reporting quality aspects have been shown to affect trust levels (SadrAra et al., 2011). Thus analyst responses to the question "*Does the annual report contain relevant facts, figures and other important information?*" from our trust database are used as proxy for *REPORTING QUALITY* (+). See Appendix B for relevant questions from Regi's questionnaire.

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[5] The predicted sign of the control variable in relation to trust is shown in parenthesis.

Lastly, the dispersion in analyst trust for a company is likely to reveal something about the general trustworthiness of the top management team. Therefore the standard deviation of analysts' trust responses, *DISPERSION TRUST* (-), is included as a control variable as well, to adjust for personal opinions and major variations in reported trust levels. Table 2 presents definitions and sources of control variables.

Table 2. Definition and sources for control variables

Control Variable	Definition	Source
SIZE	Natural logarithm of a firm's total assets in thousands SEK at the beginning of year *t*.	Datastream and complemented by annual reports
LEVERAGE	Total debt divided by the book value of total equity at the beginning of year *t*.	Datastream and complemented by annual reports
LIQUIDITY	Current ratio, calculated as current assets divided by current liabilities at the beginning of year *t*.	Datastream and complemented by annual reports
PROFITABILITY	ROA, calculated as net income year *t-1* over total assets at the beginning of year *t-1*.	Datastream and complemented by annual reports
FAMILIARITY	Responses to "How long have you been covering this company?".	Regi Research & Strategi AB's trust database
REPORTING QUALITY	Responses to "Does the annual report contain relevant facts, figures and other important information?".	Regi Research & Strategi AB's trust database
DISPERSION TRUST	The standard deviation of trust responses.	Regi Research & Strategi AB's trust database

All currencies are converted to SEK.

5. Results and analysis

The findings of our study are presented below. Descriptive statistics and correlations for all main variables in the regression model are presented in section 5.1, followed by the results for hypothesis 1 and 2 in section 5.2 and 5.3 respectively. Then the results for each hypothesis are analysed in section 5.4 and 5.5.
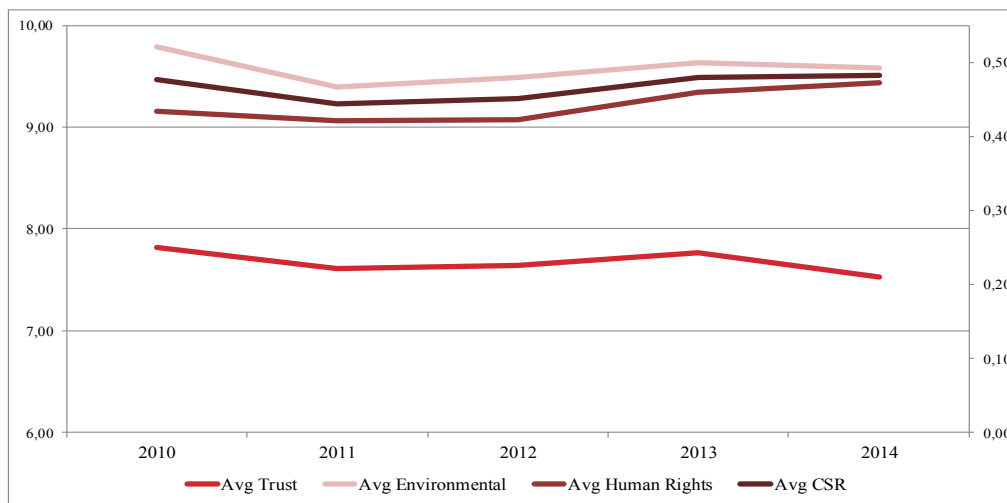
5.1 Descriptive statistics

In Figure 1 below, the overall trends for the average of trust responses, total CSR score, environmental score and human rights score are shown for our 328 firm-year observations across the sample period 2010-2014. Between 2010 and 2011 average CSR scores trended downwards, to later increase slightly until 2013 where the average environmental and human rights scores differ. The average human rights score continues upwards and increases substantially more from 2012 than the average environmental score, which starts decreasing after 2013.

Throughout the sample period, the average environmental score is at a higher level than the average human rights score, suggesting the environmental aspect has carried most weight in the Swedish CSR movement. This may be due to the fact that Sweden is a high trust country where companies historically have complied well with international standards on human rights norms, and might hence not work actively with human rights issues to the same extent as environmental issues. Another plausible explanation is that environmental issues generate greater interest, as their implications are easier to quantify and integrate in valuations (Eccles, Krzus & Serafeim, 2011). In later years however, the average environmental score has stagnated and the two CSR dimensions are converging. This indicates that human rights are increasingly paid attention to, which may be due to the overall CSR trend gaining strength.

The overall variations in average trust responses are very small, and the average trust has moved more in conjunction with the environmental score than the human rights score. This further supports indications of environmental aspects being more important than human rights aspects to stakeholders. Moreover, the movements in average trust responses and average CSR scores mirror each other between 2010 and 2013, indicating that in line with hypothesis 1 there seems to be a positive relation between the two measures. In 2014 however, average trust is declining while average CSR increases slightly, instead suggesting a negative relation.

Figure 1. Overall trends

In Table 3 in Appendix A, descriptive statistics for all main variables in our regression model are displayed. As the scale for *TRUST* spans from 1 to 10, the mean of 7.67 is high and indicates that most responses fall in the upper range of the scale. The standard deviation is 0.98, suggesting little variation in responses and further proving that the majority of responses are clustered near 7-9 on the scale. The mean for *CSR SCORE* is 0.47 and the standard deviation is 0.17, which proves quite large variations in scores as they range from 0 to 1. Two companies in our sample, Swedish Match[6] and KappAhl Holding AB[7], have very low respectively high *LEVERAGE* (debt-to-equity ratios) due to negative equity as a result of dividends and buy-backs exceeding net income as well as high debt in relation to equity[8]. However, since these debt-to-equity ratios are correct they are not excluded from our sample and regression model.

As a first indication of the association between our main variables, Spearman correlations are displayed in Table 4 in Appendix A. As opposed to Pearson correlations, Spearman correlations are well suited for both continuous and discrete variables and limit the effects of outliers. Noteworthy is that the correlation matrix depicts the isolated correlation between two variables, whilst a regression shows the combined effect on the dependent variable of all independent variables. As a result, the values and signs of the Spearman correlation coefficients may not correspond with what is shown by the regression, but the results show

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[6] Swedish Match Annual Reports, 2010-2014.
[7] KappAhl Holding AB Annual Reports, 2010-2014.
[8] Swedish Match and KappAhl Holding AB were omitted from our sample in a test regression, which showed a higher and significant beta value for *LEVERAGE* than our original regression model, but *CSR SCORE* was no longer significant.

that no two variables correlate to such an extent it poses a problem for our study. Furthermore, the correlation coefficients give an indication of the presence of multicollinearity[9] between our main independent variables.

The two variables correlating most with *TRUST* are *REPORTING QUALITY* (0.447) and *DISPERSION TRUST* (-0.494). This is most likely due to the fact that these variables originate from the same dataset and financial analysts as the trust responses. A positive correlation between *TRUST* and *REPORTING QUALITY* seems reasonable as financial reporting quality is ought to have great influence on financial analysts' perception of the trustworthiness of a company and its top management team. The negative correlation between *TRUST* and *DISPERSION TRUST* indicates that a low standard deviation in trust is associated with a higher trust in general. This means that the more scattered the trust responses, the higher the dispersion and the lower the average trust, since responses are spread along the entire scale from 1 to 10 instead of being clustered around the mean of 7.67.

The correlation coefficient between *TRUST* and *CSR SCORE* (0.103) is positive, in line with hypothesis 1. So are also the correlations between *TRUST* and *SIZE* (0.075), *PROFITABILITY* (0.205) and *LIQUIDITY* (0.145). The correlations between *TRUST* and *FAMILIARITY* (-0.087) as well as *LEVERAGE* (-0.169) are negative, contradicting what was predicted regarding *FAMILIARITY*. At this stage, it is concluded that no independent variables correlate with each other to such an extent that it poses problems with multicollinearity for our regression model.

5.2 Results – Hypothesis 1

To investigate whether there is a positive association between financial analysts' trust for companies' top management team and the companies' CSR performance, *TRUST* is regressed on *CSR SCORE* and the control variables *DISPERSION TRUST, REPORTING QUALITY, FAMILIARITY, SIZE, LEVERAGE, PROFITABILITY* and *LIQUIDITY*. The results from the regressions are shown in Table 5. Contrary to the hypothesised positive association between *TRUST* and *CSR SCORE,* our original regression model (1) shows a negative coefficient on *CSR SCORE* (-2.009*) statistically significant at the 10% level. Hence higher CSR performance is associated with lower analyst trust for the companies in our sample. The signs

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[9] For further discussion concerning multicollinearity, see section 6.2.2

of the control variables' coefficients are as predicted except for the variables *SIZE (-0.128)* and *LIQUIDITY (-0.124*)*, which are negative instead of positive. However, *FAMILIARITY, SIZE* and *PROFITABILITY* are not statistically significant.

The adjusted R^2 of the original regression model indicates that 69.7% of the sample variation in financial analysts' trust can be explained by the CSR performance and our control variables combined. However, this percentage is increased due to the presence of fixed effects in our model and may thus not be completely representative. Without fixed effects, the adjusted R^2 is 45.5%. In addition, the adjusted R^2 is lowered by only 4% when *CSR SCORE* is omitted from the model. This suggests that *CSR SCORE* is statistically significant but not economically significant, that is, CSR performance does not have a major actual influence on financial analysts' trust. As *CSR SCORE* is negative and significant at the 10% level, hypothesis 1 is rejected and it is concluded that there is no positive association between analyst trust and CSR performance.

Table 5. Original model analysis

	Original model (1) TRUST	Industry-fixed effects (2) TRUST	ΔCSR SCORE & ΔTRUST (3) ΔTRUST	Δ All variables (4) ΔTRUST
CSR SCORE	-2,009*	-0,055	-0,121	-1,707
	(1,083)	(0,489)	(1,471)	(1,499)
DISPERSION TRUST	-0,456***	-0,699***	0,574***	-0,291***
	(0,085)	(0,110)	(0,098)	(0,079)
REPORTING QUALITY	0,622***	0,706***	-0,593***	0,533***
	(0,118)	(0,102)	(0,187)	(0,132)
FAMILIARITY	0,027	-0,150*	0,097	0,021
	(0,099)	(0,080)	(0,161)	(0,088)
SIZE	-0,128	-0,056	-0,398	0,157
	(0,293)	(0,535)	(0,333)	(0,264)
LEVERAGE	-0,023**	-0,060*	0,012	-0,014**
	0,011	(0,292)	(0,008)	(0,006)
PROFITABILITY	0,564	0,725**	-1,031	-0,161
	(0,399)	(0,331)	(0,709)	(0,544)
LIQUIDITY	-0,124*	0,147**	-0,093	-0,089
	(0,071)	(0,069)	(0,278)	(0,098)
CONSTANT	6,82	4,354***	10,402*	-0,230**
	(5,077)	(0,905)	(5,849)	(0,104)
Observations	328	328	232	232
Adjusted R^2	0,697	0,493	0,159	0,192
Year-fixed effects	Yes	Yes	Yes	Yes
Firm-fixed effects	Yes	No	Yes	Yes
Industry-fixed effects	No	Yes	No	No

***, **, * represent significance at the 1%, 5%, and 10% levels respectively, using a two-tailed test.
Robust standard errors are shown in parenthesis.

The table shows the unstandardized beta values of OLS regressions for the average trust responses on CSR scores and control variables over the sample period 2010-2014. See section 4.5 Table 2 for variable definitions. For (3), the Δ of *CSR SCORE* and *TRUST* is the change between t and t+1. In regression (4) the Δ of all variables is the yearly change in each variable. Firms are grouped in industries according to the Industry Classification Benchmark Supersectors. The expected sign of each coefficient is shown in parenthesis by the variable name.

Firm-fixed effects are exchanged to industry-fixed effects in (2) to investigate the influence of fixed effects on our model. The adjusted R^2 falls to 49.3% and *CSR SCORE* is no longer significant while all control variables except *SIZE* now are. However, since trust is a firm specific measure and firm-fixed effects presumably provide more detailed adjustments, these are used in the regressions throughout our study.

In (3), the changes in *CSR SCORE* and *TRUST* from one year to the next are used. *CSR SCORE* (-0.121) is now less negative, but not significant. The adjusted R^2 decreases notably to 15.9%, and some of the control variables alter signs. To further investigate the dynamic effect in our regression model, the yearly change in all main variables is used in (4). *CSR SCORE* (-1.707) is more negative than in (3), but still not significant. The adjusted R^2 again falls, and the control variables *SIZE* and *PROFITABILITY* change signs as compared to (1). Worth noting is that a one unit change in an explanatory variable now translates into a one unit change in the delta of *TRUST*, rather than in the average trust score as in (1). The results suggest that *TRUST* and *CSR SCORE* vary somewhat independently of each other, as a change in *CSR SCORE* does not seem to have a significant effect on the change in *TRUST*.

In order to investigate in more detail what part of CSR actually influences the trustworthiness of companies' top management teams the most, the environmental and human rights aspects are considered separately in regressions. Holding all other variables constants, *CSR SCORE* was exchanged to *ENVIRONMENTAL SCORE* and *HUMAN RIGHTS SCORE* respectively. The results of the regressions are presented in Table 6. The *ENVIRONMENTAL SCORE* coefficient (-0.487*) is less negative than the *HUMAN RIGHTS SCORE* coefficient (-0.664), indicating that the environmental aspect has a somewhat smaller negative influence on trust. However, the association is still negative, suggesting that higher CSR performance results in lower trust, and the *HUMAN RIGHTS SCORE* coefficient is not significant, which prevents us from drawing complete conclusions.

Table 6. Disaggregated CSR components analysis

	CSR (1) TRUST	ENVIRONMENTAL (5) TRUST	HUMAN RIGHTS (6) TRUST
CSR SCORE	-2,009*		
	(1,083)		
ENVIRONMENTAL SCORE		-0,487*	
		(0,282)	
HUMAN RIGHTS SCORE			-0,664
			(0,432)
DISPERSION TRUST	-0,456***	-0,455***	-0,457***
	(0,085)	(0,855)	(0,083)
REPORTING QUALITY	0,622***	0,607***	0,619***
	(0,118)	(0,119)	(0,118)
FAMILIARITY	0,027	0,26	0,028
	(0,099)	(0,99)	(0,100)
SIZE	-0,128	-0,133	-0,164
	(0,293)	(0,288)	(0,300)
LEVERAGE	-0,023**	-0,023**	-0,022*
	0,011	(0,012)	(0,011)
PROFITABILITY	0,564	0,535	0,587
	(0,399)	(0,393)	(0,405)
LIQUIDITY	-0,124*	-0,116	-0,115
	(0,071)	(0,072)	(0,072)
CONSTANT	6,820	6,808	7,059*
	(5,077)	(5,088)	(5,223)
Observations	328	328	328
Adjusted R^2	0,697	0,696	0,695
Year-fixed effects	Yes	Yes	Yes
Firm-fixed effects	Yes	Yes	Yes

***, **, * represent significance at the 1%, 5%, and 10% levels respectively, using a two-tailed test. Robust standard errors are shown in parenthesis.

The table shows the unstandardized beta values of OLS regressions for the average trust responses on CSR scores and control variables over the sample period 2010-2014. See section 4.5 Table 2 for variable definitions. For (5), *ENVIRONMENTAL SCORE* is the GES risk rating environmental score, and for (6) *HUMAN RIGHTS SCORE* is the GES risk rating human rights score.

5.3 Results – Hypothesis 2

To further investigate the relation between financial analysts' trust and CSR performance, firms were divided into groups of heavy industry and non-heavy industry companies as well as B2C and B2B companies, as shown in Table 7 in Appendix A. An independent samples t-test was used to compare the mean *TRUST* score and the mean *CSR SCORE* of the two groups in each classification, and the results are shown in Table 8. Independent samples t-test is a proper method since the trust responses are computed on an interval scale and both groups contain a sample of more than 30 companies.

Table 8. Independent samples t-test

Industry	Mean *CSR SCORE*	Mean *TRUST*	Observations
Heavy industry	0,517***	7,93***	114
Non-heavy industry	0,437***	7,536***	214
			328
B2C	0,523***	7,693	62
B2B	0,452***	7,67	266
			328

***, **, * represent significance at the 1%, 5%, and 10% levels respectively, using a two-tailed test.

When comparing heavy industry companies to the rest of the sample, there is a statistically significant difference in the mean *CSR SCORE* between the two groups at the 1% level. This is also true concerning the mean *TRUST* score, meaning that heavy industry companies have significantly higher *CSR SCORE* and *TRUST* than their counterparts. Comparing B2C and B2B companies in the sample, the industry groups differ at 1% significance level in their mean *CSR SCORE*, while the difference in mean *TRUST* is not significant. This implies that even though it can be concluded that B2C companies perform better in CSR, their engagement is not reflected in the *TRUST* score. In order to further investigate the relationship between CSR and trust in the different industry groups, a regression is executed for which the results are shown in Table 9.

Table 9. Sector analysis

	Heavy industry (7) *TRUST*	B2B (8) *TRUST*	
CSR SCORE	-1,949	-1,731	
	(1,278)	(1,158)	
CSR SCORE*INDUSTRY	-0.265	-2,115	
	(1,788)	(1,941)	
INDUSTRY	Omitted	Omitted	
	Omitted	Omitted	
DISPERSION TRUST	-0,456***	-0,456***	
	(0,085)	(0,084)	
REPORTING QUALITY	0,622***	0,623***	
	(0,119)	(0,119)	
FAMILIARITY	0,027	0,034	
	(0,099)	(0,102)	
SIZE	-0.128	-0,103	
	(0,293)	(0,299)	
LEVERAGE	-0,023**	-0.023**	
	(0,011)	(0,011)	
PROFITABILITY	0,561	0,602	
	(0,404)	(0,408)	
LIQUIDITY	-0,123*	-0,118	
	(0,070)	(0,071)	
CONSTANT	6,836	6,451	
	-5,067	-5,18	
Observations	328	328	
Adjusted R^2	0,696	0,697	
Year-fixed effects	Yes	Yes	
Firm-fixed effects	Yes	Yes	

***, **, * represent significance at the 1%, 5%, and 10% levels respectively, using a two-tailed test.
Robust standard errors are shown in parenthesis.

The table shows the unstandardized beta values of OLS regressions for the average trust responses on CSR scores and control variables over the sample period 2010-2014. See section 4.5 Table 2 for variable definitions. For (7), the dummy variable *INDUSTRY* takes the value 1 for firms operating in the heavy industry, and 0 otherwise, and for (8) the the dummy variable *INDUSTRY* takes the value 1 for B2C firms, and 0 otherwise. Firms are grouped in industries according to the Industry Classification Benchmark Supersectors.

As the models include firm-fixed effects, the dummy variables are omitted due to collinearity in both regressions. For the heavy industry regression (7), the *CSR SCORE* coefficient (-1.949) represents the relationship between CSR and trust in the non-heavy industry sector, while the coefficient for heavy industry companies is (-1.949 + -0.265). This suggests that CSR performance actually is associated with more negative trust scores in the heavy industry sector than in the non-heavy industry sector. Furthermore, the coefficient for the interaction variable alone represents the difference between the two groups, but this difference is not statistically significant. Due to the lack of significance in our results, H_{0a} can not be rejected, and it cannot be concluded that CSR is more important for heavy industry companies than for their counterparts. Instead, the results suggest a tendency for CSR performance to lower trust more in heavy industries than non-heavy industries.

In (8), the heavy industry dummy variable is exchanged to a B2C dummy, investigating the relation between CSR performance and trust in the B2C industry compared to the B2B industry. The *CSR SCORE* for B2C companies is (-1.731 + -2.115) while the *CSR SCORE* for B2B companies is (-1.731). The coefficient for the difference between the groups is (-2.115) and not significant. Again H_{0b} cannot be rejected due to the lack of significance in the results, and contradictory to what was hypothesised the results indicate that B2C companies have a more negative relation between CSR and trust than their counterparts in the B2B sector.

5.4 Analysis – Hypothesis 1

Prior research has shown contradicting results regarding if CSR engagement can increase profitability, and Ioannou and Serafeim (2014) suggest that analysts might perceive CSR engagement as an agency cost due to the prevalence of an agency logic. However, the emergence of a stakeholder orientation in line with what Freeman et al. (2010) suggest is weakening this agency logic (Ioannou & Serafeim, 2014). Increasingly, companies are argued to be able to do good by doing well; assuming that by meeting the needs of stakeholders, companies can create value for shareholders (Freeman et al., 2001; Porter & van der Linde, 1995). Given the negative association between *TRUST* and *CSR SCORE* shown by our original regression model, it may be that Swedish financial analysts are still considering CSR engagement to be somewhat of an agency cost. This is in line with Friedman's shareholder view (1962) and the cost-centred school, suggesting that CSR investments lower firm value (Hassel et al., 2005), as well as with the negative correlation between the intangible asset value measured by Tobin's Q and sustainability performance (Konar & Cohen, 2001). As

analysts might perceive CSR activities as being made at the expense of increased profits without a corresponding reduction in risk, they rate the companies as less trustworthy (Hassel et al., 2015). Furthermore, financial analysts are just that, financial. Hence their main focus is on financial reports and not CSR aspects (Mills et al., 2001), which may explain the negative and weak association between *TRUST* and *CSR SCORE* in our regression.

Continuously, as financial analysts are the main users of financial reports (Nilsson, 2008) it is plausible that *REPORTING QUALITY* has the highest association with *TRUST* of our control variables. SadrAra et al. (2011) show that components of financial reporting have significant influence on credit managers' trust for companies, suggesting similar implications for financial analysts' trust. Moreover, all companies in our sample are listed and thus highly capital market oriented, which has been shown to be a motive for engaging in earnings management[10] (Watts & Zimmerman, 1986; Sweeney, 1994). This further strengthens the importance of financial reporting quality for trustworthiness, as companies being capital market oriented can have much to win from engaging in opportunistic behaviour to achieve short-term benefits. Another important factor for companies to be trustworthy is profitability, as shown by the association between *TRUST* and *PROFITABILITY* in our regression. Return on assets is used as a proxy for profitability in our study and a drawback of this measure worth noting is that it relies on the size of a company's assets, which depends heavily on what industry the company operates in. For instance, consulting companies tend to have low assets since their employees are not included in the balance sheet, while companies operating in heavy industries often are more asset-savvy. Hence, a higher return on assets does not necessarily indicate superior business performance.

The association between *TRUST* and *DISPERSION TRUST* is negative as predicted, likely due to the reasoning put forward before about more scattered trust responses giving a lower average trust. Contrary to our predictions however, the association between *TRUST* and *SIZE* is shown to be negative by our regression. Earlier research has shown that larger companies tend to be more strictly regulated by stakeholders and external auditors, which should improve their financial reporting quality and thus imply greater trustworthiness (Hribar & Nichols, 2007). Despite this, it seems as if financial analysts actually trust larger companies less. A possible explanation could be the tendency of larger firms to be capital market

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[10] Earings management is defined as deliberate adjustments in a company's external financial reports made for personal gain or to report more desireable results (Schipper, 1989).

oriented as well as having more attention drawn to them due to greater media coverage. This may cause them to engage in earnings management in order to fulfil demands from various stakeholders, and could in turn make the top management less trustworthy in the eyes of financial analysts. Moreover, the association between *TRUST* and *LIQUIDITY* is also shown to be negative in contrast to what was predicted. A possible reason is that a high liquidity can indicate that the company is not taking advantage of promising investment opportunities but instead keeps cash and cash equivalents, which eventually may cause deteriorating performance (Åhblom, 2014). Yet another explanation is that a high liquidity enables managers to engage in excessive spending (Berk & DeMarzo, 2014), which would reduce their trustworthiness. Despite this, the current ratio used as liquidity measure in our study provides a better measure for controlling for excessive spending than quick ratio[11], since the current ratio also incorporates inventories and is thus less related to readily accessible cash.

Two of our control variables have the expected signs but very low coefficients, suggesting that they have no material effect on financial analysts' trust for top management teams. *FAMILIARITY* is argued by SadrAra et al. (2011) to increase trust between two parties as they get to know each other when interacting. However, the weak association to *TRUST* suggests that analysts become better able to critically evaluate companies as they learn more about them. The association between *TRUST* and *FAMILIARITY* hence depends on the nature of the information available to analysts, as negative information may reduce the positive relation. The negative association between *TRUST* and *LEVERAGE* showed in our results is also weak, which could be explained by the nature of the debt-to-equity ratio used. A high debt-to-equity ratio signals that a company has high debt in relation to its equity, but this could be due to the company's investments in promising business opportunities. On the contrary, a low debt-to-equity ratio could indicate that a company is not investing in opportunities, which may result in the stagnation of its business. Hence, the association between *TRUST* and *LEVERAGE* is not really clear-cut, which explains the weakness in our results.

5.5 Analysis – Hypothesis 2

The statistically significant difference, proven by the independent samples t-test, in the mean *CSR SCORE* between heavy industry and non-heavy industry companies supports arguments of the importance of CSR for firms operating in a heavy industry. Together with the small but significant difference in the mean *TRUST* score, the results suggest that CSR performance

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[11] Quick ratio = (current assets – inventories) / current liabilities (Åhblom, 2014).

actually generates trust in the heavy industry sector. However, our regression results indicate the contrary, that the relation between CSR and trust is more negative for firms in the heavy industry than the non-heavy industry sector. Noteworthy is however that since our results are not significant, they may not mirror the reality properly and one can only reason about the possible explanations for the suggested relation. As analysts use environmental information when evaluating the risks and future prospects of companies (Nilsson, 2008), they take environmental impact into consideration. For heavy industries the environmental impact is material and may cause CSR engagement to be perceived as window dressing (Hassel et al., 2005). Hence, trust for companies in heavy industries might be substantially lower than for others, especially as the Swedish society is becoming more sustainability conscious, which poses higher risks for heavy industry companies.

As Eccles et al. (2011) argued, B2C companies engaging in CSR are ought to outperform their counterparts in the B2B sector due to the advantage of high customer awareness and the ability to reach consumers with their CSR actions. Therefore, financial analysts should evaluate B2C companies engaging in CSR as more trustworthy, since consumers are less likely to reject them and negatively influence their financial performance. However, the listed firms in our sample categorized as B2C brands are in many cases not brands familiar to the public, but rather parent organizations. Hence, CSR may not yield a strong effect since recognition is a prerequisite for consumers to act. This might mitigate the association between CSR performance and trust, and can help explain why there is a more negative relation between *CSR SCORE* and *TRUST* for B2C companies as compared to B2B companies. Moreover, the low number of observations in the B2C group in our sample can be a reason for the lack of significance in our regression results and the difference in the mean *TRUST* score between the groups.

6. Discussion

In the following chapter, the sensitivity of our results to the choices and assumptions made are discussed in section 6.1. Robustness tests are included to investigate the validity of the estimation method in section 6.2.

6.1 Sensitivity analysis and reliability of assumptions

6.1.1 Model specification and sample

Due to the lack of CSR scores and trust responses for all companies on the Nasdaq OMX Stockholm, our sample is limited to 90 companies and 328 firm-year observations, which may have influenced the significance of our results. Furthermore, the choice of using fixed effects in our regression model is based on the assumption that many factors influencing the perceived trustworthiness of companies' top management teams are company specific. However, it is worth noting the guidelines for choosing between fixed and random effects to make sure the correct method is used. In order to use fixed effects, our key explanatory variable must not be constant over time, which it is not since the CSR scores vary from year to year. In addition, fixed effects allow the independent variables to be correlated with the error component, as opposed to random effects where there must be no correlation. It is likely that our explanatory variables are correlated to some extent with an omitted variable included in the error term since we cannot possibly control for all factors that may influence trust. Given that the assumptions for random effects estimation do not hold, and since N (the number of cross-sectional units) is large and T (the number of time series data) is small, fixed effects estimation should be used in our regression model (Gujarati & Porter, 2009).

6.1.2 Measuring trust

The dataset with trust responses lacks continuity due to major variations between the years in which firms are being covered. The number of financial analysts having been asked about the trustworthiness of top management teams also differs, why cases with fewer than three analysts have been excluded from the sample to avoid biases. Moreover, the variation in trust responses is very small, which may be due to the fact that Sweden is a high trust country (Mazzi et al., 2016) and that the companies in our sample are large and listed. This may create a tendency for financial analysts to rate the trustworthiness of top management teams quite high, should no particular incidents that change the perceived trustworthiness to the better or worse have occurred. To investigate the effect of the small variation in trust on our regression results, two additional regressions with rescaled trust responses have been performed. The

results are shown in Table 10 in Appendix A, where (9) uses the difference from the mean trust response and (10) uses this difference divided by the standard deviation as proxies for trust. The rescaled trust in (9) provides no additional effect to our regression as the results are the same as before, and in (10) the coefficients are slightly changed but *CSR SCORE* is no longer significant. The results are thus little affected by variations in trust measures.

6.1.3 Measuring CSR

Using CSR scores as proxy for CSR performance comes with some uncertainties. Foremost, this is due to sustainability reporting being voluntary and inconsistent, and CSR scores being subject to variations depending on what is incorporated in the measures. Also, there may be a tendency for companies to omit large issues that they are facing from the reports (Semenova et al., 2010). However, voluntary reporting standards have recently emerged to standardize CSR scores, making them more credible and easily comparable across industries and geographies (Ioannou & Serafeim, 2014). This adoption of CSR policies has also generated a growing interest among analysts (Eccles, Krzus & Serafeim, 2011), and the CSR scores published by GES Investment Services are well grounded with many factors taken into consideration.

Throughout our study, different measures of CSR have been used in regressions to test the sensitivity of our results to variations in CSR measures. In section 5.2 Table 5 shows (3) and (4) which uses the yearly change in *CSR SCORE* and Table 6 shows (5) and (6) which uses the environmental and human rights scores respectively. The results indicate that our regression model is somewhat sensitive to alternative CSR measures, as coefficients vary and sometimes lose their significance. This also creates uncertainty regarding the proper way to combine the two dimensions into an average CSR measure, as the two scores were given equal weight. In addition, our study uses the CSR ratings published in June each year in order for the information to be available when financial analysts are asked about top managements' trustworthiness. Since GES Investment Services publishes CSR ratings twice a year, financial analysts may consider the December ratings more, causing these ratings to have a greater effect on trust.

6.1.4 Measuring control variables

The control variables used in our study are foremost financial measures since these are believed to be of greatest importance to financial analysts. However, top management teams

are often responsible for governing the company and managing its daily operations, and thus the perceived trustworthiness may possibly be influenced by other factors than purely financial ones. Despite this, some control variables have to be excluded when choosing others, and alternative measures such as the return on equity and the natural logarithm of enterprise value could have been used as proxies for our control variables instead. Moreover, a few control variables such as price volatility and quick ratio have been excluded from our study due to the lack of data. The data retrieved from Datastream has not been complete or totally accurate, as some errors have been found and needed manual correction. For this, the exchange rate at the end of the financial year was used, since the exchange rate used by Datastream to convert amounts into SEK is not available.

6.1.5 Extreme values and outliers

To control for the presence of extreme values and outliers in our data, the normality of residuals is checked. The mathematical results in Table 11 in Appendix A show that the normal distribution of the standardized residuals is rejected at a 5% significance level. This is mostly due to peakedness as shown in Figure 2, since only a small fraction depends on the skewness of residuals. However, since the graphical results illustrate that the distribution still is reasonably symmetric and no apparent outliers are present, the central limit theorem[12] is assumed to be pertinent.

Since no apparent outliers are present in our residuals, all values for our main variables are kept as they are. The natural logarithm of total assets as proxy for size has been used to limit major differences in asset value between the companies in our sample. Furthermore, extreme values as those found for Swedish Match's and KappAhl Holding AB's leverage ratios have been controlled and concluded correct. An option would be to winsorize extreme values in order to make them more in line with remaining data points, but since all our extreme values are correct and there are no apparent outliers in our residuals, all values are kept as they are in the regressions. However, as illustrated by the regression excluding Swedish Match and KappAhl Holding AB from the sample, our results are somewhat sensitive to outliers.

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[12] The central limit theorem states that, given certain conditions, the arithmetic mean of a large enough sample of independent random variables will be approximately normally distributed regardless of the underlying distribution (Newbold et al., 2013).

6.2 Robustness tests

For the OLS estimation method to provide unbiased coefficients, the following assumptions must hold; (*a*) the independent variables are linear, (*b*) the independent variables are not perfectly correlated, (*c*) the expected value of the residual is zero, (*d*) the variance in the residual is constant, (*e*) the residuals are normally distributed, and (*f*) there is no autocorrelation between the residuals. Whether the residuals are normally distributed has been discussed in section 6.1.5 above, and Table 12 in Appendix A shows that the expected value of the residual is zero. Furthermore, the Durbin-Watson test indicates if there is any autocorrelation between the residuals, meaning that a residual correlates with itself at different points in time. It is worth noting that the Durbin-Watson test is not completely suitable for panel data, but in lack of other measures it is used in our study and the test statistic (2,027) indicates that there is no autocorrelation. The presence of correlation between the independent variables is controlled for by checking for multicollinearity, which is discussed in section 6.2.2 below. In section 6.2.1, heteroskedasticity indicating whether the variance in the residual is constant is discussed.

6.2.1 Heteroskedasticity

Heteroskedasticity is present when the variance in one variable is unequal across the range of values of an explanatory variable. While it does not cause unbiased results for OLS regression, it makes the results inefficient since the actual variance and covariance are underestimated (Newbold et al., 2013). One way to control for heteroskedasticity is to check the normality of residuals, which is discussed in section 6.1.5 above. Another way is to perform a Breusch-Pagan test, for which the graph in Figure 3 in Appendix A suggests that no heteroskedasticity is present in our regression model. This is however contradictory to the significance of the Breusch-Pagan and White tests, which leads us to reject the assumption of homoscedasticity. Hence heteroskedasticity is present in our model, and consequently robust standard errors have been included throughout the study to correct for it.

6.2.2 Multicollinearity

Multicollinearity occurs when explanatory variables in a multiple regression model are highly correlated and one can explain the other. This makes it difficult to separate the effect of one individual predictor on the dependent variable, but does not affect the reliability of the model as a whole (Newbold et al., 2013). Table 4 shows the Spearman correlation coefficients, which indicate that multicollinearity is not an issue in our model. Additionally, the variance

inflation factor (VIF) quantifies the severity of multicollinearity by measuring how much of the variance in a regression coefficient is increased by correlation between the explanatory variables (Pallant, 2013). By altering the dependent variable in multiple regressions, it is concluded that all VIF values (displayed in Table 13) are around 1 and well below 3, suggesting that no multicollinearity is present in our model.

7. Conclusion

The aim of our study was to investigate the relation between a company's CSR performance and financial analysts' perceived trustworthiness of the company for listed firms on the Nasdaq OMX Stockholm between the years 2010-2014. GES Investment Services' risk rating were used as proxy for companies' CSR performance, and financial analysts' trust was proxied by the perceived trustworthiness of the companies' top management teams.

Contrary to our first hypothesis, the results suggest a negative relationship between CSR performance and trustworthiness, significant at the 10% level. Higher CSR performance is thus associated with lower analyst trust for the companies in our sample, and the regression further indicates that CSR is not economically significant, that is, CSR performance does not have a material influence on trust. Hence our first hypothesis (H_1) is rejected. Alternative regression models with dynamic changes in the main variables indicate some variation. When separating the two dimensions of the CSR ratings, the environmental and human rights scores, the regressions suggest a less negative relation between trust and the environmental score than between trust and the human rights score, although the latter is not significant.

As previous research has indicated that CSR can vary in importance in different industries, the B2C and B2B industries as well as the heavy industry and the non-heavy industry sectors were compared. The difference in the mean *CSR SCORE* was statistically significant between the groups, suggesting that firms in the B2C and heavy industry sectors outperform their counterparts in CSR. However, the regressions continue to show negative associations between CSR performance and trust, and even more negative for the B2C and heavy industry sectors, contrary to what was predicted. Despite this, the regression results only show a tendency for firms in the heavy industry and B2C sectors to generate more negative trust in relation to their CSR performance. Hence, we cannot reject H_{0a} and H_{0b}.

Previous research has shown contradictory results concerning if CSR engagement can increase profitability, and it has been argued that financial analysts may still consider CSR engagement to be an agency cost. Even though CSR is becoming increasingly important to consumers and other stakeholders in Sweden, it may not yet have reached full establishment among financial analysts. Since financial analysts' role historically not have included analyzing CSR factors but instead focusing on financial reports, they are likely to still be adapting to the increased encouragement to consider CSR in company evaluations. Moreover,

since our sample is relatively small, CSR performance measures are still novel and the sample period quite short; our results should be cautiously interpreted. Given that our results show no positive association between company trust and CSR performance for our sample period, it might be that the growth of CSR and its importance has just get started and will develop over the years to come.

7.1 Validity, reliability and generalizability

The validity of our study describes the extent to which it measures what it is supposed to and affects the capability to draw reliable conclusions from our results. The main variables in our regression models are proxied and thus some uncertainty prevails whether they actually measure and illustrate what they should. Furthermore, the impact of the control variables on trust is not completely certain as many coefficients are close to zero and not significant. However, the variables seem to explain at least some variation in the dependent variable. Lastly, our results have been shown to be somewhat sensitive to outliers, but still pass our robustness tests.

The reliability of our study relates to its capacity to generate stable and consistent results and thus to the ability of others to replicate it. Given the lack of suitable industry classifications for the purpose of our study, the division of companies into industries have been done manually in our sample, resulting in assumptions that may diverge in other sector analyses. Moreover, data for our control variables have been collected from Datastream, making it difficult to determine to what extent all data values are correct.

The extent to which our results are generalizable to other populations than Swedish listed companies is argued to be quite limited. Listed companies are likely to have more capital and thus be better suited to engage in CSR, which makes it difficult to determine the causality regarding if companies engaging in CSR is performing well or if companies performing well can better afford to engage in CSR. Furthermore, the perceived trust of financial analysts is anticipated to not be equitable to other stakeholders as they differ significantly in objectives and information considered. In addition, caution should be taken to what type of financial analyst is being considered, as these may also differ significantly.

7.2 Suggestions for future research

The purpose of our study has been to investigate the relationship between CSR performance and financial analysts' trust for companies, which presents new insights in a scarcely researched field. Hence our study invites to further research on matters relating to the extent to which financial actors consider CSR in company evaluations and what implications CSR may have for financial management. Our study reveals that factors such as reporting quality influence analyst trust, but future research could dig deeper into what analyst trust actually depends on. Moreover, as corporate governance was omitted from our study due to the lack of data, it would be interesting to investigate whether it would alter the results, given that corporate governance is more linked to financial management than are environmental and human rights issues. Lastly, since CSR is argued to increase the disclosure of non-financial information and make companies more transparent, a direction for future research is to consider if CSR influences the perceived openness of companies more than it does the trustworthiness.

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Appendix A

Table 1. Sample distribution across industries

Industries	Oberservations
Oil and Gas	11
Chemicals	0
Basic Resources	30
Construction and Materials	41
Industry goods and Services	32
Automobiles and parts	18
Food and Beverage	13
Personal and Household Goods	25
Health Care	25
Retail	24
Media	7
Travel and Leisure	16
Telecommunications	13
Utilities	0
Banks	0
Insurance	0
Real Estate	19
Financial services	25
Technology	29
Total	328

Firms are catergorized according to the International Classification Benchmark ICB. Our sample represents 15 out of 19 Supersectors. Banks and insturance companies are excluded from the sample.

Table 3. Descriptive statistics for all mean variables

	Obs.	Min.	25%	Mean	Median	75%	Max.	St. Dev
TRUST	328	3,33	7,12	7,67	7,79	8,38	9,67	0,98
CSR SCORE	328	0,03	0,33	0,47	0,47	0,59	0,80	0,17
DISPERSION TRUST	328	0,00	0,92	1,29	1,20	1,60	3,46	0,53
REPORTING QUALITY	328	5,50	7,37	7,74	7,74	8,19	9,35	0,63
FAMILIARITY	328	1,00	2,50	2,83	2,83	3,22	4,00	0,58
SIZE	328	11,84	15,84	16,89	17,19	17,86	19,83	1,47
LEVERAGE	328	-20,11	0,21	0,52	0,53	0,88	10,29	1,65
PROFITABILITY	328	-1,02	0,03	0,07	0,06	0,11	0,99	0,14
LIQUIDITY	328	0,05	1,05	1,54	1,38	1,86	7,12	0,89

The table shows the decriptive statistics for the main variables for the sample of 328 firm-year observations, during the sample period 2010-2014. See section 4.5 Table 2 for variable definitions.

Table 4. Spearman correlations for all main variables

	TRUST	CSR SCORE	DISPERSION TRUST	REPORTING QUALITY	FAMILIARITY	SIZE	LEVERAGE	PROFITABILITY
CSR SCORE	0,103*							
DISPERSION TRUST	-0,494***	-0,032						
REPORTING QUALITY	0,447***	0,344***	-,0146***					
FAMILIARITY	-0,087	0,391***	0,038	0,114**				
SIZE	0,075	0,519***	-0,018	0,307***	0,212***			
LEVERAGE	-0,169***	0,064	0,082	0,007	0,029	0,238***		
PROFITABILITY	0,205***	-0,121**	-0,086	-0,037	0,016	-0,024	-0,335***	
LIQUIDITY	0,145***	0,055	0,042	0,019	0,060	-0,065	-0,202**	0,237***

The Spearman correlation coefficients of the main variables in the regression model for the 328 firm-year observations over the period 2010-2014 are shown above. See section 4.5 Table 2 for variable definitions. ***, **, * represent significance at the 1%, 5%, and 10% levels respectively, using a two-tailed test.

Table 7. Grouped industry sectors

Heavy Industry

Industries	Observations
Oil and Gas	11
Chemicals	0
Basic Resources	30
Construction and materials	41
Industry Goods and Services	32
	114

Business to Consumer (B2C)

Industries	Observations
Food and Beverage	13
Personal and Household Goods	25
Retail	24
	62

Table 10. Alternative *TRUST* measurement analysis

	Original model (1) *TRUST*	Scalad *TRUST* (9) *ΔTRUST FROM MEAN*	Standardized *TRUST* (10) *ΔTRUST FROM MEAN/STDEV TRUST*
CSR SCORE	-2,009*	-2,009*	-1,565
	(1,083)	(1,083)	(1,638)
DISPERSION TRUST	-0,456***	-0,456***	-0,373**
	(0,085)	(0,0848)	(0,154)
REPORTING QUALITY	0,622***	0,622***	0,533***
	(0,118)	(0,118)	(0,128)
FAMILIARITY	0,027	0,027	-0,051
	(0,099)	(0,099)	(0,131)
SIZE	-0,128	-0,128	-0,081
	(0,293)	(0,293)	(0,374)
LEVERAGE	-0,023**	-0,023**	0,007*
	0,011	(0,011)	(0,009)
PROFITABILITY	0,564	0,564	0,340*
	(0,399)	(0,399)	(0,448)
LIQUIDITY	-0,124*	-0,124*	-0,125
	(0,071)	(0,071)	(0,0867)
CONSTANT	6,820	-0,854	-0,812
	(5,077)	(5,077)	(6,789)
Observations	328	328	325
Adjusted R^2	0,697	0,697	0,575
Year-fixed effects	Yes	Yes	Yes
Firm-fixed effects	Yes	Yes	Yes

***, **, * represent significance at the 1%, 5%, and 10% levels respectively, using a two-tailed test.
Robust standard errors are shown in parenthesis.

The table shows the unstandardized beta values of OLS regressions for the average trust responses on CSR scores and control variables over the sample period 2010-2014. See section 4.5 Table 2 for variable definitions. For (9), *TRUST* is measured as the distance from the mean trust score. In (10) *TRUST* is measured as the distance from the mean trust score divided by the standard deviation for trust.

Table 11. Normality of residuals

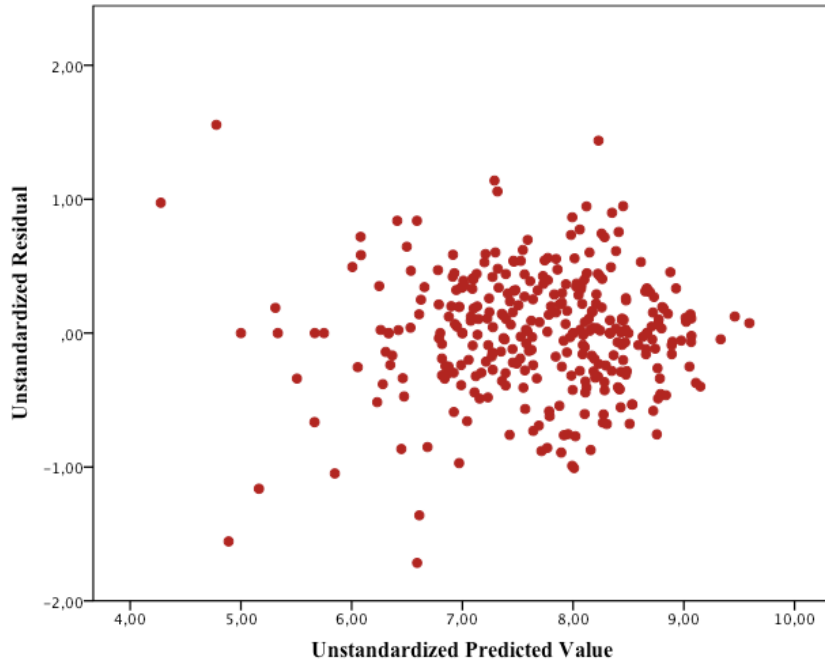|	Kolmogorov-Smirnov	Shapiro-Wilk	Skewness	Kurtosis
Statistic	0,051**	0,987***	-0,218	1,235
Significance	0,037	0,005		
Std. Error			0,135	0,268

Figure 2. Distribution of the standardized residual
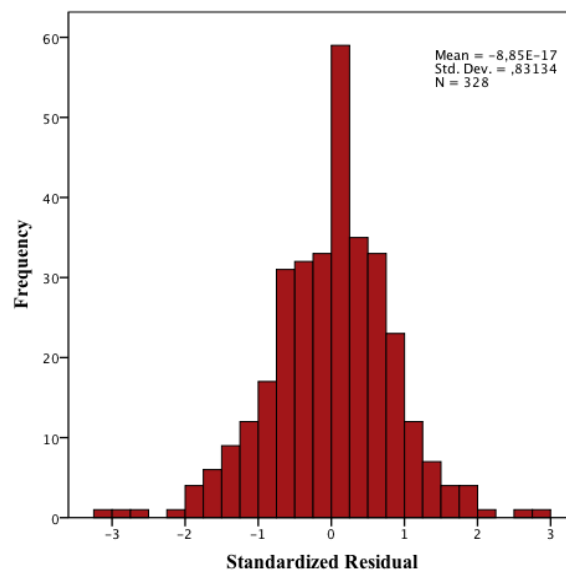
Table 12. Descriptive statistics residual

	Obs.	Min.	Mean	Max.	St. Dev
Standardized Residual	328	-3,175	0,000	2,878	0,831
Valid N (listwise)	328				

Figure 3. Breusch-Pagan plot

Table 13. VIF multicollinearity statistics

	Tolerance	VIF
CSR SCORE	0,581	1,721
DISPERSION TRUST	0,946	1,057
REPORTING QUALITY	0,825	1,212
FAMILIARITY	0,851	1,175
SIZE	0,622	1,607
LEVERAGE	0,967	1,035
PROFITABILITY	0,925	1,081
LIQUIDITY	0,951	1,052

The table shows the results from the variance inflation factor test of the original model (1) with *TRUST* as dependent variable. The dependent variable has been exchanged with each variable in order to control for multicollinearity.

Appendix B

Relevant questions from the questionnaire used by Regi Research & Strategi AB

TRUST Score

Top Management – Trustworthiness

To what extent do you feel that the top management is trustworthy?

1   2   3   4   5   6   7   8   9   10   Do not know

REPORTING QUALITY

Annual Report – Content

Does the annual report contain relevant facts, figures and other important information?

1   2   3   4   5   6   7   8   9   10   Do not know

FAMILIARITY

How long have you been covering this company?

1. Less than 2 years
2. 2-3 years
3. 4-6 years
4. 6 + years
5. Do not want to answer / Do not know