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The Impact of CSR on Investors' Behaviour

SADAF NIKYAR

NARDOS TEWOLDE

**KTH ROYAL INSTITUTE OF TECHNOLOGY
SCHOOL OF INDUSTRIAL ENGINEERING AND MANAGEMENT**

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Sadaf Nikyar
Nardos Tewelde

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Effekten av CSR på investerares beteende

av

Sadaf Nikyar
Nardos Tewolde

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Industriell ekonomi och organisation
SE-100 44 STOCKHOLM



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	Commissioner N/A	Contact person N/A

Abstract

There has been an increased attention to sustainability in the society which has affected both consumers' and investors' behaviour. Consequently, companies are pressured to include CSR in their businesses. Further, the media is quick to report when companies are acting socially irresponsible. For this reason it is of interest to investigate whether these news reports affect investors. One way to examine this is to study the stock price during such events. In addition, it has been shown that women tend to value sustainability higher than men when consuming goods and services. Hence, it is relevant to study if this trend is shown in their investment attitudes as well. The method in this study consists of an event study which has been used to investigate the impact of CSR events on stock prices of Swedish listed companies. In addition, a survey was conducted to examine the attitudes towards CSR among Swedish private investors.

The average two-day CAR for negative events was -0.18 percent, which suggests an existing effect of negative CSR events on stock prices of listed Swedish companies belonging to OMX30. The findings in the survey showed that there is a great interest in CSR among Swedish investors. Further, a larger proportion include CSR in their investment decision compared to those who do not. Our findings showed that there exist differences in attitudes towards CSR within different categories of investors such as gender, age and trading habits. A larger proportion of female respondents have a greater interest in CSR and include CSR aspects in their investment decisions compared to males. A greater amount of female participants believe that a company's CSR performance is at least as important as its financial one compared to males. Further, a significant smaller proportion of investors between 18-24 years include CSR aspects when they make investment decisions compared to those between 55-64 years. Our results suggest that the main underlying reason for respondents to include CSR was risk mitigation for the ones who trade more often and moral concerns for those who trade less often. Lastly, a larger proportion of those who trade less frequently believe that a company's CSR performance is at least as important as its financial one, compared to those who trade more frequently.

Key-words: CSR, OMX30, Sweden, event study, private investors, survey



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Godkänt 2017-06-01	Examinator Terrence Brown	Handledare Tomas Sörensson
	Uppdragsgivare N/A	Kontaktperson N/A

Sammanfattning

Hållbarhet har fått en ökad uppmärksamhet i samhället vilket har påverkat både konsumenters och investerares beteende. Följaktligen pressas företag att inkludera CSR i sina verksamheter. Vidare är media snabb med att rapportera när företag inte agerar socialt ansvarsfullt. Det är därför av intresse att undersöka om dessa nyhetsinslag påverkar investerare. Ett sätt att undersöka detta är att studera aktiekursen under sådana händelser. Utöver det har det visat sig att kvinnor tenderar att värdera hållbarhet högre än män vid konsumtion av varor och tjänster. Det är därför relevant att studera om denna trend återspeglas i dess investeringsattityd. Metoden i denna studie består av en eventstudie vilken har använts för att undersöka effekterna av CSR händelser på aktiepriser tillhörande svenska börsbolag. Utöver det genomfördes en enkätundersökning för att studera svenska privata investerares attityder gentemot CSR.

Den genomsnittliga två dagars CAR för negativa events var -0,18 procent, vilket pekar på en existerande effekt av negativa CSR händelser på aktiepriser tillhörande börsnoterade svenska bolag som ingår i OMX30. Resultaten i enkätundersökningen visade att det finns ett stort intresse för CSR bland svenska investerare. Vidare inkluderar en större andel CSR i sina investeringsbeslut. Våra resultat visade att det finns skillnader i attityder gentemot CSR inom följande kategorier av investerare: kön, ålder och hur ofta de handlar aktier. En större andel kvinnor har ett större intresse för CSR och inkluderar CSR aspekter i sina investeringsbeslut i jämförelse med män. En signifikant mindre andel av deltagare som tillhör åldersgruppen 18-24 år inkluderar CSR aspekter i sina investeringsbeslut i jämförelse med åldersgruppen 55-64 år. Våra resultat visar att deltagare som handlar aktier ofta inkluderar CSR huvudsakligen för att reducera sin risk, medan de som handlar sällan gör det av moraliska skäl. Slutligen visar våra resultat att en större andel av deltagare som handlar aktier sällan anser att ett företags CSR prestation är minst lika viktig som dess finansiella, i jämförelse med deltagare som handlar ofta.

Nyckelord: CSR, OMX30, Sverige, eventstudie, privata investerare, enkätundersökning

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1 Introduction

This section presents the background, problem formulation, purpose, research question, contribution and the hypothesis of this study.

1.1 Background

Sustainability has received an increased attention during the past decade. According to the United Nations Framework Convention on Climate Change (2016), more people are realising the damages caused by climate change and its effect on society. In addition, they claim that greenhouse gas emissions caused by humans are the key drivers of climate change. The consequences include a rise in sea levels and extreme weather conditions. The climate change is a global challenge which requires solutions coordinated on an international level. The Paris Agreement is one example of an initiative towards a remedy, in which the United Nations works together to combat the climate change (United Nations Framework Convention on Climate Change, 2016).

According to the GRI (2014), people are becoming increasingly aware of their own negative impact on the environment and are trying to make sustainable decisions. This has influenced both their consumption- and investment decisions. Hence, the society is pressuring companies to have sustainable business operations. Otherwise companies might experience a decrease in their profits and risk losing financing opportunities due to a loss of investors. Consequently, companies are now forced to focus on Corporate Social Responsibility (CSR) (GRI, 2014).

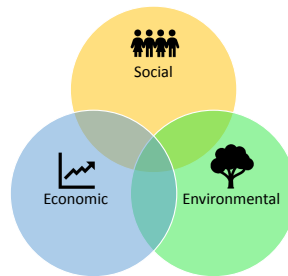


Figure 1: The dimensions of CSR (Grankvist, 2012).

The figure illustrates the three dimensions of CSR according to Grankvist (2012). The social dimension involves how companies should integrate social concerns into their businesses, the economic one includes how companies should use their resources in a sustainable way, and the environmental one involves how companies should contribute to a better environment. This definition of CSR will be used in our study.

As illustrated in Figure 1, CSR is often divided into three dimensions: social, economic and environmental. The social dimension includes contributing to a better society by integrating social concerns into the business operation. One example is to not use child labour in the operation. The economic dimension includes the use of resources in a sustainable way. Lastly, the environmental dimension refers to contributing to a better environment and having an operation that minimises negative effects on global warming (Grankvist, 2012). This is the definition which we will use in this study.

Conversely, Friedman (2002) was one famous critic of CSR and expressed his view as: "there is one and only one social responsibility of business - to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud". However, this view can be perceived as insufficient, as companies affect their surrounding by different activities and potential investors are requesting companies to integrate social and environmental responsibilities into their primary decisions (Mallin et al., 2013).

A study made by McKinsey (2010) shows that a majority of executives consider sustainability important, but far from all of them invest in CSR related activities. One reason could be a lack of a clear definition of CSR among consumers and investors. In fact, over 20 percent of companies do not have a clear definition of CSR and definitions vary across companies. However, most executives agree on the value of CSR. 76 percent claim that CSR contributes positively to shareholder value in the long run since it is considered to improve both the brand and the reputation of companies (McKinsey, 2010). Thus, an engagement in CSR can attract new investors and some studies have shown an increased attention in sustainable investments. PwC has previously conducted a survey with institutional investors who have their primary operations in the U.S, showing that 80 percent of the respondents have considered CSR issues when investing in one or more contexts. 73 percent of the respondents consider risk mitigation as the primary driver for considering CSR issues (PwC, 2014).

The media is quick to report when companies are not acting socially responsible. For example, the incident with child labour at H&M was a highly discussed subject in media (Bergmark & Norbergh, 2015). The question is if these news reports have an impact on companies and investors. One way of investigating this is to study if stock prices change during such events. In addition, it would be of interest to examine the general attitudes towards CSR among investors.

1.2 Problem Formulation

As previously mentioned, many companies do not invest in CSR related activities although they consider it important. One reason could be that the management of a firm does not see the benefits of it. A key objective for a company should be to increase its profit. To be successful, the company should maintain a good relationship with its customers and investors. Hence, the company must understand their needs. If it is proven that investors value CSR highly when making investment decisions, it can give incentives to the management to invest more in such activities and vice versa.

Previous research has shown conflicting results on how CSR events affect stock prices (Aupperle et al., 1985; Ljungdahl & Larsson, 2008). No in-depth studies have been conducted on how listed Swedish companies are affected by this. Further, the focus on how the stock prices of listed Swedish companies are affected by CSR events is of high relevance since Swedish listed companies are at the forefront when it comes to CSR (Boje, 2015). Further, studies have shown that women tend to value sustainability higher than men when consuming goods and services (Åkesson, 2015). Therefore, it is interesting to investigate if this trend is shown in their investment attitudes as well. This knowledge can give additional incentives to companies to invest in CSR activities.

1.3 Purpose

The purpose of this study is to investigate if CSR events affect stock prices of listed Swedish companies belonging to OMX30¹, and to study the attitudes towards CSR among Swedish private investors.

1.4 Research Question

The research question to be studied is the following:

”Is there an effect of CSR events on stock prices of listed Swedish companies belonging to OMX30?”

This leads to the follow-up question:

”What are the attitudes towards CSR among Swedish private investors?”

¹OMX30 is an index which consists of the 30 most traded stocks on the Stockholm Stock Exchange (Nasdaq, 2017).

1.5 Contribution

Previous research on the effects of CSR events on stock prices has focused on the U.S market. As previously mentioned, these studies have had conflicting results (Aupperle et al., 1985; Ljungdahl & Larsson, 2008). For these reasons, it is of high relevance to investigate this subject further. By doing so, listed Swedish companies can get a better understanding of the importance of acting socially responsible. In addition, investors can gain a deeper knowledge of the value of investing in sustainable companies. If the findings are that stock prices decrease with negative CSR events, it would not be favourable for investors to hold shares of companies that do not act socially responsible. Further, this study aims to contribute to a deeper understanding of Swedish investors' attitude towards CSR issues. This will be done by studying how different types of private investors value CSR in their investment decisions. Through this, financial advisers will be able to give customised advice, which will give them an advantage. Fund managers could also benefit from the results by gaining knowledge in how they can attract different types of investors.

1.6 Hypotheses

We expect positive (negative) CSR events to increase (decrease) stock prices. The increased awareness among consumers should affect the company's sales and therefore its profit. This should be an incentive for investors to take CSR into account when making investment decisions. Further, we expect that women value CSR higher than men since it is shown in their consumer behaviour. In addition, our hypothesis is that women are more risk averse and therefore would more often refrain from investing in companies that are involved in irresponsible activities. We expect individuals with a higher educational level to have a greater interest in CSR since they probably have more knowledge in it. Further, we anticipate a major reason for individuals to consider CSR to be an expectation of a potential higher future return. We do not expect that the majority of investors are willing to give up monetary benefits for moral aspects. In addition, our hypothesis is that the social dimension is seen as the most important one since it includes aspects such as child labour and working conditions, which should be easier for people to relate to.

2 Method

This section presents the method that will be used to fulfil the purpose of this study and to answer the research questions.

2.1 Research Process

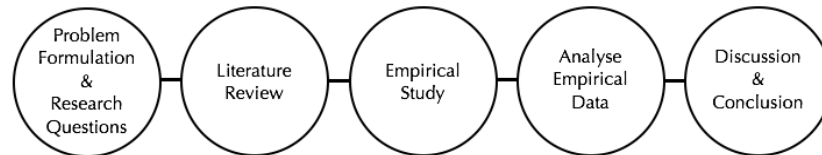


Figure 2: An overview of our research process.

The figure illustrates our research process. The process was initiated by a problem formulation and stating the research questions. This will be followed by a literature review and an empirical study including an event study and a survey. Then, the result from the empirical study will be analysed. Lastly, we will draw conclusions from our results and analysis.

The purpose of this study is to investigate if CSR events affect stock prices of listed Swedish companies belonging to OMX30, and to investigate the attitudes towards CSR among Swedish private investors. In order to fulfil it, the study is initiated by a problem formulation, followed by the research questions. We will conduct a literature review, which includes a study of previous research. This is followed by an acquisition of relevant theory. The literature review will give us a deeper knowledge of the area and help us to answer the research questions and to analyse the results. Further, an empirical study will be conducted which will consist of an event study and a survey. The event study will be used to investigate the effect of CSR events on stock prices of listed Swedish companies belonging to OMX30. The survey will be used to identify the attitudes towards CSR among Swedish private investors. Further, we will analyse and discuss the empirical data and draw conclusions based on the literature review and the empirical study. The research process is illustrated in Figure 2.

2.1.1 Literature Review

The literature review will be initiated by a wide search for journals, books and other scientific papers primarily using Google Scholar, Social Science Research Network (SSRN) and the library of KTH. The reason for using a wide search is to identify the areas which are of most interest for this study. All literature will be critically evaluated according to Collis & Hussey (2014) to make sure it is of high quality and relevant to this study. The

wide search will be narrowed down to allow us to focus on the most significant areas. The following keywords will be used to find relevant literature:

Behavioural Finance, Heuristics and Biases, Corporate Social Responsibility, Investor Behaviour, Efficient Capital Markets, CSR and Event Study, Stakeholder Theory, Shareholder Theory, Signaling Theory, Investor Views on Sustainability, Agency Theory and CSR and Stock Prices.

2.1.2 Event Study

The purpose of studying the main research question is to investigate if CSR events affect stock prices of listed Swedish companies belonging to OMX30. This effect will be measured for a short-term around the event date i.e. the announcement of the event in the media. An event study is a widely used method when one is interested in measuring the short-term effect of corporate events on a company's stock price (Kothari & Warner, 2007; Råsbrant, 2013). Examples of studies using this method are Cellier and Chollet (2016) who examined the effect of CSR rating announcements on stock prices and Anderson-Wier (2010) who investigated the stock markets' reaction to environmental news, to name a few. The results of both studies were robust.

A possible problem with event studies is that one cannot be entirely sure that the change in the stock price is only affected by the specified event. Other news, such as the release of financial reports, could also have an effect on investors' behaviour. Another problem is that some events might already be anticipated prior to the news report. In other words, the effect of the event on the stock price has already been incorporated into the price before the event date. Due to these problems, it is important to include as many events as possible and to isolate the events. This will minimise the effect of external factors and increase the validity of the study. The process of an event study is summarised by the following (MacKinlay, 1997):

1. Data collection
2. Define event- and estimation window
3. Calculate abnormal and normal returns
4. Testing procedure

Data Collection

We will search for CSR events by using keywords together with a company name in the database Retriever Mediearkivet. This database is a digital news archive and contains printed newspapers, magazines and business press in PDF format, as well as editorial web

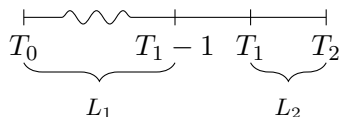
news and e-mail broadcasts. The following keywords will reflect both positive and negative CSR events:

Child Labour, Pollution, Toxic Spill, Work Conditions, Green Production, Sustainability, Ethics, Equality, Diversity and Contamination.

The companies that will be included in this study belong to the OMX30 index which consists of the 30 most traded stocks (Nasdaq, 2017). Since these stocks are the most traded ones, it is reasonable to expect that the corresponding events will have the most effect on these stocks.

Event and Estimation Window

Event windows refer to the time period when the unexpected change in stock prices is investigated. This period is often expanded to multiple days after the event and it is advisable to include at least the day after the event. The underlying reason for this is to ensure that the whole effect on the stock price is captured. However, it is important to not choose too large event windows, since it can allow for noise factors (MacKinlay, 1997). We will use a two-day event window. Previous research has shown that the results of a two-day event window are robust if instead one would use longer event windows (Anderson-Weir, 2010; Flammer, 2012). In addition, an estimation window needs to be specified. This is a period prior to the event when the normal stock returns will be calculated. This is often chosen to 120 days prior to the event. The event window and the estimation window should not overlap (MacKinlay, 1997). In the timeline illustrated below, the day of the event is defined as T_1 . The length of the estimation window, denoted L_1 , is between T_0 and $T_1 - 1$, in this case 120 days. The length of the event window, denoted L_2 , is between T_1 and T_2 , which is 2 days.



Abnormal and Normal Returns

All data that will be used to calculate abnormal and normal returns will be collected from Yahoo Finance. The abnormal return will be calculated to investigate how the CSR events impact the stock price. This is a valid measurement since it shows the unexpected change in the stock price caused by a specific event. The abnormal return is in other words the difference between the return of a stock price during the event window, and the normal return during the estimation window. It will be calculated by:

$$AR_{it} = R_{it} - E(R_{it} | X_t), \quad (1)$$

where AR_{it} is the abnormal return for event i at time t , R_{it} is the actual return, $E(R_{it} | X_t)$ is the expected (normal) return and X_t is the conditioning information. The actual return will be calculated by:

$$R_{it} = \frac{P_{it} - P_{i(t-1)}}{P_{i(t-1)}}, \quad (2)$$

where P_{it} is the closing stock price for company i at day t .

The normal return is the expected return if the event had not occurred. It is calculated by the market model. In the market model, the security return is assumed to have a linear relationship with the market return, in this case, the return of the OMX30 index. The market model is the following:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it}, \quad (3)$$

where R_{mt} is the return for the OMX30 index at time t , ϵ_{it} is the error term with mean zero and variance σ_ϵ^2 (MacKinlay, 1997). The parameters α and β in model (3) is to be estimated using ordinary least squares (OLS), with the following OLS estimators:

$$\hat{\beta}_i = \frac{\sum_{t=T_0}^{T_1-1} (R_{it} - \hat{\mu}_i)(R_{mt} - \hat{\mu}_m)}{\sum_{t=T_0}^{T_1-1} (R_{mt} - \hat{\mu}_m)^2}, \quad (4)$$

$$\hat{\alpha}_i = \hat{\mu}_i - \hat{\beta}_i \hat{\mu}_m, \quad (5)$$

where

$$\hat{\mu}_i = \frac{1}{L_1} \sum_{t=T_0}^{T_1-1} R_{it}, \quad (6)$$

and

$$\hat{\mu}_m = \frac{1}{L_1} \sum_{t=T_0}^{T_1-1} R_{mt}. \quad (7)$$

In formula (4), the numerator is the covariance between the return of security i and the market return. The denominator is the variance of the market return. Thus, β measures the volatility of a security in comparison to the market. In addition, α is calculated by using formula (5) and it is the excess return of a security compared to the market. Formula (6) and (7) are used to calculate the mean return of security i and the market, respectively.

By inserting the formula for the market model in equation (1), the following calculation of the abnormal return is given:

$$AR_{it} = R_{it} - E(R_{it} | X_t) = \quad (8)$$

$$AR_{it} = R_{it} - E(\alpha_i + \beta_i R_{mt} + \epsilon_{it}), \quad (9)$$

since $E(\epsilon_{it}) = 0$, formula (9) becomes the following:

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt}. \quad (10)$$

The abnormal return for each event will be calculated for time T_1 and T_2 . The abnormal returns for each event will then be aggregated to draw overall conclusions. The aggregation will result in a cumulative abnormal return (CAR) which will be calculated by using the formula below:

$$CAR_i = \sum_{t=T_1}^{T_2} AR_{it}. \quad (11)$$

The average of the abnormal returns for all events and the average CAR will be calculated by:

$$\overline{AR}_t = \frac{1}{n} \sum_{i=1}^n AR_i, \quad (12)$$

$$\overline{CAR} = \sum_{t=T_1}^{T_2} \overline{AR}_t, \quad (13)$$

where n is the number of events.

Testing Procedure

When average abnormal returns have been calculated, a parametric test and two non-parametric tests will be conducted to decide whether a conclusion can be drawn or not. According to MacKinlay (1997), both types of tests should be conducted to draw more accurate conclusions. The tests will be performed for positive and negative events separately. The tests will be two-tailed and the null hypothesis for all tests will be that the events have no impact on the stock price, meaning that the mean event effect is zero. This is the most common practice within event studies (Serra, 2002). The null hypothesis is rejected if the t-statistics $|t| > \phi^{-1}(1 - \alpha)$ with significance level $\alpha = 10\%$, where ϕ^{-1} is the inverse standard normal distribution.

The parametric test will be performed using Boehmer, Masumeci, and Poulsen (BMP) (1991) test statistic t_{BMP} . The reason for choosing the BMP test is that it has shown to outperform other parametric tests (Harrington & Shrider, 2007). Further, the BMP test takes the event-induced variance into account, which increases the probability of obtaining more accurate results when testing the null hypothesis (Boehmer et al., 1991). The BMP test is expressed as:

$$t_{BMP} = \frac{\overline{SCAR}\sqrt{n}}{S_{SCAR}}, \quad (14)$$

where $SCAR$ is the standardised cumulative abnormal return, \overline{SCAR} is the average of $SCAR$, S_{SCAR} is the cross-sectional standard deviation of $SCAR$ and n is the number of events. The reason why standardisation is made is to make sure that the abnormal returns will have the same variance (Serra, 2002). $SCAR$, \overline{SCAR} and S_{SCAR} will be calculated by:

$$SCAR_i = \frac{CAR_i}{S_{CAR_i}}, \quad (15)$$

$$\overline{SCAR} = \frac{1}{n} \sum_{i=1}^n SCAR_i, \quad (16)$$

and

$$S_{SCAR} = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (SCAR_i - \overline{SCAR})^2}, \quad (17)$$

where S_{CAR_i} is the standard deviation of CAR_i and will be calculated as:

$$S_{CAR_i} = \sqrt{2}S_{AR_i}. \quad (18)$$

In formula (18), S_{AR_i} represents the estimation of the standard deviation of AR_i for large L_1 and will be computed by:

$$S_{AR_i} = \frac{1}{L_1 - 2} \sum_{t=T_0}^{T_1-1} (R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt}). \quad (19)$$

To be able to use the parametric test, an assumption of normally distributed returns must be made. If the assumption is not met, the result of the parametric test is not valid. Due to this, it is advisable to use non-parametric tests for comparison (Yolsal, 2011).

The generalised sign test is one of the non-parametric tests that will be conducted in this study. The test will be conducted based on the generalised standardised abnormal returns (GSAR). The generalised sign test has been proven to outperform traditional sign

tests (Luoma, 2011). This is because traditional sign tests assume that, under the null hypothesis, the proportions of positive and negative ARs are the same and therefore they are not well specified for a skewed distribution. However, the generalised sign test accounts for a possible asymmetric return distribution under the null hypothesis. Thereby, the result can be more reliable (Cowan, 1992; Luoma, 2011). Standardised abnormal returns SAR_{it} are defined as (Luoma, 2011):

$$SAR_{it} = \frac{AR_{it}}{S_{AR_i}}. \quad (20)$$

In order to account for the possible event-induced volatility, Kolari (2011) re-standardised the $SCARs$ with the cross-sectional standard deviation to get $SCAR^*$, which is a zero mean and unit variance random variable defined as:

$$SCAR_i^* = \frac{SCAR_i}{S_{SCAR_i}}. \quad (21)$$

Further, the GSARs are defined as:

$$GSAR_{it} = \begin{cases} SCAR_i^* & \text{for the CAR-period} \\ SAR_{it} & \text{otherwise} \end{cases}$$

The CAR-period is one time point where the abnormal returns in the event window are accumulated (Luoma, 2011). The sign of the $GSAR_{it}$ is denoted G_{it} and defined as:

$$G_{it} = \text{sign}[GSAR_{it} - \text{median}(GSAR_i)] \quad (23)$$

$$\text{sign}(x) = \begin{cases} 1 & \text{if } x > 0 \\ 0 & \text{if } x = 0 \\ -1 & \text{if } x < 0 \end{cases}$$

The generalised sign test statistic t_{SIGN} , which is used to test the null hypothesis of no mean event effect is defined as:

$$t_{SIGN} = \frac{Z_1 \sqrt{T-2}}{\sqrt{T-1-Z_1^2}}, \quad (25)$$

where

$$Z_1 = \frac{1}{\sqrt{n}} \sum_{i=1}^n \frac{G_{i0}}{S_G}, \quad (26)$$

and

$$S_G = \sqrt{\frac{1}{T} \sum_{t \in \tau} \left(\frac{1}{\sqrt{n}} \sum_{i=1}^n G_{it} \right)^2}, \quad (27)$$

where $\tau = \{T_0, \dots, 0\}$ and $T = L_1 + 1$. The test statistic t_{SIGN} approaches the standard normal distribution as $T \Rightarrow \infty$ (Luoma, 2011).

The generalised rank test is another non-parametric test that will be used. For this test, we will use the generalised rank (GRANK) test proposed by Kolari (2011). The reason for using GRANK is because it has been proven to outperform other rank tests when testing CAR. In addition, GRANK outperforms the parametric tests since it is more robust (Kolari, 2011). In the generalised rank test, the SARs are ranked. For this, we need the GSAR used in the generalised sign test. The ranks of GSAR are defined as:

$$U_{it} = \frac{GSAR_{it}}{T+1} - \frac{1}{2}, \quad (28)$$

where $T = L_1 + 1$ and U_{i0} is the rank for the cumulative abnormal return (Kolari, 2011). The t-statistic of testing the null hypothesis of no mean event effect is:

$$t_{GRANK} = Z \left(\frac{T-2}{T-1-Z^2} \right)^{1/2}, \quad (29)$$

where

$$Z = \frac{\bar{U}_0}{S_{\bar{U}}}. \quad (30)$$

The numerator in (30) is the average of ranks for the CAR of all events, and the denominator represents the standard deviation of the average of ranks across time and events. The average and the standard deviation of ranks will be calculated by:

$$\bar{U}_t = \frac{1}{n} \sum_{i=1}^n U_{it}, \quad (31)$$

$$S_{\bar{U}} = \sqrt{\frac{1}{T} \sum_{t \in \tau} \bar{U}_t^2}, \quad (32)$$

where $\tau = \{T_0, \dots, 0\}$.

2.1.3 Survey

To investigate the attitudes towards CSR among different types of Swedish private investors, we will conduct an online survey. The purpose of the survey is to collect data from a varied set of private investors. The survey will be anonymous and will collect background information about the investors' age, educational level, occupation, trading habits and gender. We will create the survey by using an iterative process and a test-group to assure reliable responses. The test-group will be predetermined regarding the background information. This will allow for feedback on the survey, which we can use to improve the final survey. Further, the survey will consist of multiple choice scaled questions; each scaled from 1 to 5. These questions will be based on Trost's (2012) guidelines for surveys, which explains in what way one should consider the structure, vocabulary and alternatives of the questions to ensure reliable results. The respondents of the survey will not be given rewards for participating since it can result in answers which are not thought-out due to respondents who only participate to receive a reward. This can in turn lower the validity (Trost, 2012).

The survey will be initiated with a definition of CSR to ensure that the respondents share the same predetermined view of CSR which is used in the study. Further, it will end with an opportunity for the respondents to share additional comments where they can express relevant aspects that the survey did not cover. To minimise the risk of losing the interests among respondents, we will make sure that the length of the survey is appropriate. The survey will be created in a cloud-based survey application in Google Forms. We will use channels such as email to reach the target group. We will uppermost use our network at school, work, family and friends. In addition, we will ask them to use their network, to minimise the effect of a sample selection bias. In addition, we will keep track of the number of people who have received the survey to be able to calculate the response rate. Lastly, the data collected from the survey will be analysed with statistical methods illustrated with charts and tables.

The survey can have limitations if a sufficient amount of respondents do not participate. This can lead to a result that might not be representative for private investors in Sweden and thus lead to findings with a low level of generalisability. Generalisability is the extent to which research findings can be extended to a population (Collis & Hussey, 2014). However, by using an iterative process and a test-group when creating the survey, the level of reliability increases (Trost, 2012). In addition, this will contribute to a high level of validity since the quality of the questions is important in order to study the right phenomenon.

Testing Procedure

To evaluate whether the differences in responses between categories are statistically significant, a significance test is needed. We will perform a two-tailed t-test as it is appropriate when investigating if the means of two groups are significantly different from each other. The process to assess the difference in mean between categories A and B for each question is described below. The process is based on the test described in the article by Nguyen et al. (2016).

For each scaled question in the survey, the mean and standard deviation of the observations will be calculated. This will be done for the two categories separately. Further, the combined standard deviation s_{AB} is calculated by using the following formula:

$$s_{AB} = \sqrt{\frac{(n_A - 1)s_A^2 + (n_B - 1)s_B^2}{n_A + n_B - 2}}, \quad (33)$$

where n_A and n_B are the number of observations in category A and B respectively. s_A and s_B are the standard deviations of the observations for the same categories. The test statistic is then calculated by:

$$t = \frac{\bar{x}_A - \bar{x}_B}{s_{AB} \sqrt{\frac{1}{n_A} + \frac{1}{n_B}}}, \quad (34)$$

where \bar{x}_A and \bar{x}_B represent the sample mean of the responses of each category. The degrees of freedom is defined as:

$$df = n_A + n_B - 2, \quad (35)$$

and the null hypothesis for the test will be that the mean difference between the two categories A and B is zero. The null hypothesis is rejected if $|t| > \phi^{-1}(0.9)$, i.e. on a 10 percent significance level.

3 Literature Review and Theory

This section presents background information about CSR, previous research and relevant theory connected to the area to be studied.

3.1 Corporate Social Responsibility

CSR has received an increased attention, creating an external pressure on corporates to integrate CSR into their businesses (GRI, 2014). In addition, there are different views on the definition of CSR and how it should be integrated into corporates. In this section we will present some interpretations of CSR and clarify the definition which will be used in this study. Further, we will present some external factors pressuring corporates to include CSR into their businesses.

3.1.1 The Definition of CSR

In this study, CSR is viewed from three dimensions: social, economic and environmental. The environmental dimension is regarded as environmental friendly actions taken by corporates. A corporate is environmentally friendly if it minimises its negative impact on the environment, including minimising the effects on global warming and defending the ecosystem on earth. The social dimension is regarded as actions caring for social concerns and contributing to a better society. A corporate is socially sustainable if it respects human rights and creates chances for individuals to attain a better life. The economic dimension is regarded as actions caring for a sustainable use of resources without destroying the living standards of people or the environment (Grankvist, 2012).

Davis' (1973) definition of a corporate's engagement in CSR includes engagements beyond regulations and constraints. Davis argues that social responsibility begins where the law ends. McWilliams and Siegel (2001) also share this view on CSR as they believe that a corporate must not operate under its own interest, but rather focus on improving the society. In contrast, Friedman (1970) argues that the real purpose of a corporate is to generate as high profit as possible. Therefore, Friedman argues that a corporate's engagement in CSR is caused by the potential profits from it.

As we can observe, there seem to be different views on the purpose of a corporate's engagement in CSR. This indicates that CSR is a subject which is still under discussion.

3.1.2 External Pressure to Integrate CSR into Businesses

Corporates are facing an external pressure to integrate CSR into their businesses. The external pressure can arise from different sources such as media attention, regulations, customers and investors who value CSR issues in their decision making (GRI, 2014). The external pressure to engage in CSR, in particular regarding the environmental dimension, has increased over the past decades.

Environmental Regulations

Allen and Shonnard (2011) found that the number of federal environmental laws and amendments in the U.S has increased over the years. In fact, the number has increased from about 70 in the early 1980's to about 120 in the early 2000's.

Media Attention Regarding CSR

There has been an increased attention in media regarding corporates engagement in CSR. Flammer (2012) found that there has been a significant increase in the number of articles about environmental CSR over the years in the U.S. The average number of articles was 20 in the 1980's and the average number of articles was about six times higher (117) in the 2000's. The articles in the investigation were from five of the most widely followed newspapers: USA Today, New York Times, Wall Street Journal, Washington Post, and Financial Times.

Shareholder' Consciousness Towards Environmental CSR

Flammer (2012) quantified shareholders' consciousness towards the environment in her study by looking at the number of shareholder proposals regarding the environment. The data was collected from RiskMetrics which covers all shareholder proposals related to CSR of S&P1500 companies. The number of such proposals was counted and expressed as a fraction of all proposals listed in the database. The fraction of such proposals has increased significantly over the years, namely by about four times from 1997 until 2009. This indicates an increased consciousness towards the environment among shareholders.

Regulations in EU and Sweden

In April 2014, a proposal for a new directive was made in the EU. This directive included parts that are directly related to CSR issues. The companies included must be able to understand and explain how social and environmental issues or consequences affect their individual financial position, performance and ability regardless if there is an impact or not. The directive gives clear instructions that the company and its management are responsible for presenting the financial consequences of social and environmental issues. In the preparatory work for the directive, it has however clearly emerged that the competence of the company's management is low in terms of how social and environmental fields affect the financial results (CSR Sweden, 2017).

The directive was implemented into Swedish law in December 2016. The Swedish government proposed that all businesses of a certain size have to make a sustainability report with information on environmental, social conditions, staff, respect for human rights and anti-corruption. The report has to describe the firm's policy on sustainability issues and the substantial risks linked to the company's operations. The company's auditor has to check if the sustainability report has been created. These reporting requirements are based on the EU directive and shall make information on how companies work with sustainability issues more transparent and comparable (Ygeman & Malm, 2016).

3.2 Previous Research

There are many international studies investigating the link between CSR and companies' financial performance. Previous research on investors' attitude towards CSR highlights differences across genders, income levels, ages and educational levels. These studies mainly focus on countries outside of Sweden.

3.2.1 CSR and Financial Performance

There are conflicting theories regarding whether CSR affects companies' financial performance and stock prices. Some studies have shown a negative or a positive relationship between CSR and financial performance, whereas other studies have shown an unknown or varied relationship depending on CSR activity.

Negative Relationship

Aupperle et al. (1985) have shown that companies investing in CSR activities will have a competitive disadvantage. According to them, this is due to the resources needed to focus on CSR. The investments needed to improve CSR work would only increase costs and lower profits and market values. This results in a negative relationship between CSR and stock prices. The study does not take into account the possible increased revenues when improving CSR. If consumers value CSR, they might increase their consumptions in socially responsible companies. The result of this study may not be true in today's society since people are trying to make more sustainable investment decisions (GRI, 2014).

Walley and Whitehead (2004) have previously studied the effect on making environmental improvements for companies. They found that environmental investments are costly and have little economic payback. They argue that win-win situations do not exist and that it is not possible for a company to be leading both environmentally and financially. Hassel et al. (2005) investigated the relationship between the market value and overall environmental performances of Swedish companies. A negative relationship was found which is explained by the high costs that environmental investments bring. The authors argue that

the costly investments have a negative impact on expected earnings, which decreases the market value.

Unknown or Varying Relationship

Several studies have shown that there are too many factors affecting the market value of a company, which makes it difficult to investigate the impact of CSR. This gives a neutral relationship between CSR and financial performance (Ullmann, 1985). One example of a study illustrating a neutral relationship is made by McWilliams and Siegel (2001). Their findings suggest that firms engaged in CSR activities have the same rate of profit as those who do not. They argue that CSR investments increase costs and revenues simultaneously. Thus, the overall relationship between CSR and financial performance stays neutral.

Varying relationship between CSR and financial performance have also been found. Frooman (1997) conducted a meta-analysis of 27 event studies that investigate the change in the stock price when companies act socially irresponsible. Although Frooman could not prove that acting socially responsible would increase the market value, his result suggested that companies acting socially irresponsible suffered from a decrease in market value. In other words, Frooman could not conclude that the market rewards socially responsible and law-abiding behaviour but that bad behaviour is punished. Further, he could not conclude if the decrease in market value was due to the market acting with ethical concerns or due to economical concerns causing investors to sell stocks in fear of a decreased expected future return.

Bird et al. (2007) investigated which CSR activities the market values most. They found that employment strengths and environmental concerns had the most consistent results. The market value of companies meeting regulatory standards regarding the environment was found to be higher than those who did not. In addition, the market rewarded good CSR practice in the diversity area. An area that the market did not reward was found to be community issues. The market appeared to not value philanthropic activities and did get concerned when a public company conflicted with the community. Although it was shown that the market expected companies to meet regulatory standards regarding the environment, it did not value when companies voluntarily went beyond meeting these minimum standards.

Cellier and Chollet (2016) studied the effect of CSR ratings on the market value of European firms. The results suggested that an announcement of a CSR rating gave a positive market reaction, regardless of good or bad rating. This shows that the market care for the knowledge of CSR rating of companies. Further, they discussed that the market values certain CSR activities higher than others. Environmental CSR activities had a positive impact on the market value, whereas community involvement was found to be value destroying.

Positive Relationship

Other studies have shown that if CSR activities can increase the profitability, it should be reflected in the stock price (Ljungdahl & Larsson, 2008). El Ghouli et al. (2011) examined the effect of CSR on the cost of equity for U.S. firms. Their results showed that U.S. companies with better CSR scores had a lower cost of equity. One reason could be that companies with improved employee relations, environmental policies and product strategies are perceived as less risky. Hassel et al. (2010) have investigated different CSR ratings' affect on the stock price. They concluded that leading companies with higher environmental and social performance ratings have higher stock prices, and lagging companies have lower stock prices.

Flammer (2012) has previously examined if U.S corporations' environmental CSR activities affect stock prices. More specifically, she conducted an event study on U.S publicly-traded companies from 1980 to 2009 and investigated if corporate news related to the environment would affect shareholders' view of the company. Her findings suggest that news showing a company acting responsibly towards the environment resulted in a significant increase in the stock price. In contrast, negative news decreased the stock price. Similarly, Klassen and McLaughlin (1996) have investigated the benefits and market response to firm-specific environmental events, such as when companies are winning environmental awards or experiencing environmental crises. They found positive abnormal returns for positive environmental events and negative for the opposite. They argued that the effect is due to investors valuing these companies higher, as they expect the future financial performance to improve.

Studies have shown that CSR investments lead to future cost savings and thus increase the market value. Dechant et al. (1994) suggested that focusing on environmental issues would make it easier to meet future environmental requirements, and therefore it would reduce costs. Further, Lo and Sheu (2007) studied the effect of CSR investments on the market value of U.S firms. They found that firms are being rewarded by the market when taking social, environmental and economic concerns into account in their strategies. They argued that companies investing in CSR activities would experience cost savings and an increase in sales, which should be rewarded by investors.

In summary, previous research has shown conflicting results regarding the effect of CSR on companies' stock prices and financial performance. In addition, these studies mainly focus on the U.S market. Since markets can differ considerably among countries due to differences in regulations, the effect of CSR on companies' stock prices may vary across countries. This gives incentives to further investigate this phenomenon in Sweden. By focusing our study on listed Swedish companies, we will fill a gap in the research and contribute to a better understanding of the effects of including CSR into the business. This knowledge can be useful primarily for listed Swedish companies, and for investors since they will receive a deeper knowledge of the value of investing in companies that are engaged in CSR.

3.2.2 Differences in Investors' Attitude

Milne and Chan (1999) have conducted a study on how much of a difference corporate social disclosures have on investment decisions. They found that a majority of investors do not make adjustments in their investments when a company discloses its social responsibilities. In other words, they showed that investors do not take CSR into account when making investment decisions.

Nath et al. (2012) have investigated the differences in the demand for CSR information for investment decisions in the U.S. Their result indicated that women value CSR higher as they have a higher demand for CSR information than men. In addition, age was found to be a relevant factor as younger investors were shown to have a greater interest in CSR investments. Schueth (2003) performed a study focusing on the U.S and showed that socially responsible investors tend to be younger, which suggests a link between age and investors' attitude towards CSR. Further, Cheah et al. (2011) found that younger female investors tend to hold a broader knowledge in CSR and that they disagree with the view that a company's social and environmental performance is not as important as its financial performance. Investors with high incomes and female investors were shown to most likely believe that companies should be as responsible to their shareholders as to the broader society. In addition, younger investors, investors with high educational levels and high income levels were found to regard socially responsible companies as at least as profitable as other companies. Vyvyan et al. (2011) investigated the attitudes of retail investors in Australia and found that women have a more favourable attitude towards CSR than men. However, this favourable attitude is not shown in their actual investment decisions. They found that even though women claim that they value CSR highly, their investment decision making criteria do not differ from men, as both base their decisions on traditional criteria such as past performance to a larger extent.

Tippet and Leung (2001) have compared ethical equity investors to ordinary equity investors in Australia, and found some demographic differences between them. Their findings suggested that ethical investors are predominantly females with small portfolios who are relatively young and highly educated. Further, Rosen et al. (1991) conducted a survey with 4,000 individual investors in two mutual funds that incorporate social screens in their investment decisions. They found that socially responsible investors are younger and have higher educational levels compared to other investors. However, the majority of respondents were unwilling to sacrifice financial return to socially responsible corporate behaviour.

Nilsson (2009) formed three segments of socially responsible investors. He found that the investors who primarily had concerns about profit valued financial return higher than social responsibility. The investors who primarily had concerns about social responsibility were found to value social responsibility over financial return. Lastly, he found that the

investors who primarily had concerns about social responsibility and return valued both return and social responsibility when deciding to invest.

In summary, previous research has shown differences in investors' attitude towards CSR across genders, income levels, ages and educational levels. These studies are mainly conducted outside of Sweden. Investors' attitude may differ among different countries and therefore it is of interest to investigate this further in Sweden.

3.3 Theory

In this section we will present different theories that are relevant to the area to be studied. The theories will cover both an aggregated market level and an individual investor level. The theory covering an aggregated market level will be used to analyse the main research question in this study. The follow-up question will be analysed by using theory on an individual investor level.

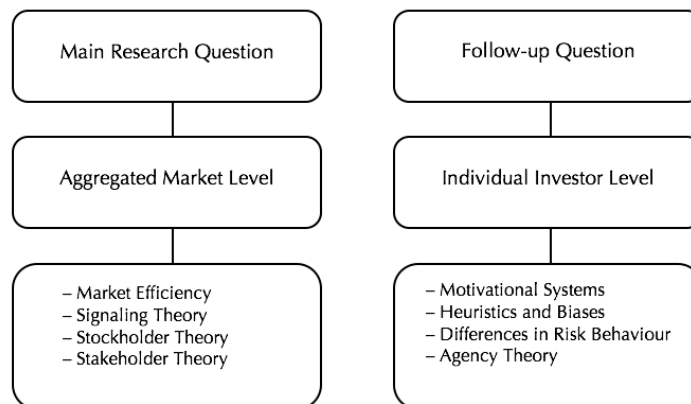


Figure 3: Theoretical framework.

The figure illustrates our theoretical framework. For the main research question, theory on an aggregated market level will be collected. This includes theory about market efficiency, signaling theory, stockholder theory and stakeholder theory. For the follow-up question, the theory will instead focus on an individual investor level. Theories about motivational systems, heuristics and biases, differences in risk behaviour and agency theory will be included.

The theoretical framework is illustrated in Figure 3. The main research question, which investigates if there is an effect of CSR events on stock prices of listed Swedish companies belonging to the OMX30, deals with two main perspectives namely the markets' and the companies'. Assumptions about market conditions need to be made in order to analyse this phenomenon. The assumptions will regard the market efficiency and the signal observability, which is explained further in the following sections. Theories that describes

the interaction between investors and companies are also needed for the analysis. The theories that will be used are signaling-, stockholder- and stakeholder theory. The follow-up question, which investigates the attitudes towards CSR events among Swedish private investor, focuses on individual investor's behaviour. To analyse this question we will use theories such as motivational systems, heuristics and biases, differences in risk behaviour and agency theory.

3.3.1 Neoclassical Economics and Market Efficiency

A dominant paradigm in traditional finance models is neoclassical economics. Firms and individuals are viewed as self-interested agents who want to optimise their ability when facing constraints on resources. The neoclassical economics have three fundamental assumptions about people (Ackert & Deaves, 2009):

1. People have rational preferences across possible outcomes or states of nature.
2. People maximise utility and firms maximise profits.
3. People make independent decisions based on all relevant information.

The development and functioning of an economy rely on capital markets. Efficient and well-performing capital markets make optimal resource allocation possible (Ackert & Deaves, 2009). The primary role of the capital market is the allocation of ownership of the economy's capital stock. The idea is a market in which firms can make production-investment decisions, and investors can choose among the securities that represent ownership of firms' activities under the assumption that security prices at any time fully reflect all available information (Fama, 1970). Prices are good signals of value and encourage the best allocation of capital since they always accurately reflect information. If a market is efficient, information is fully and instantaneously reflected in prices (Ackert & Deaves, 2009).

We will assume that the market is semi-strong efficient in this study. This indicates that a company's stock price reflects all public information including recent relevant information that is gained through for example annual reports and news. However, investors can take advantage of market anomalies to reach above average returns (Fama, 1970).

3.3.2 Signaling Theory

Individuals will make decisions based on information gained privately or from the public. Information asymmetry arises when one party has more information about a matter than another. The less informed party could potentially make better decisions if it was more informed (Connelly et al., 2011).

Signaling theory describes the behaviour of two parties with different information and is essentially concerned with reducing information asymmetry between the two parties. Signalers, such as managers or executives, obtain information which they think outsiders would find useful. This could for example be information about an organisation's product. When the insiders have obtained this knowledge, they have to decide if they want to communicate the information to outsiders. In other words, they have to decide if they will signal it to the public. The signalers can also be forced to share the information, or unintentionally do so due to media. This is often the case of negative information. When the information is public, it is important to assess the observability of the signal. Signal observability refers to how well outsiders can notice the information. For example, if the newspaper reporting the information is well known or not. The outsiders receiving the signals are called receivers. Signalers and receivers can often have conflicting interests meaning that the newly public information could benefit the receivers but hurt the signalers, or vice versa. The receivers must choose how to interpret the information and act when they have been more informed. Often, the signals give the receivers a better understanding of the quality of the firm and better decisions can be made (Connelly et al., 2011).

In this study, the shareholders act as receivers of information and react when CSR information about the company is released. If the information is positive, they should react positively and vice versa (Connelly et al., 2011). We intend to include CSR events collected from prominent news sources to increase the probability of more people receiving the information. We will assume that investors are kept updated on major news reports about the companies they have ownership in, meaning that the signal observability is high.

3.3.3 Stockholder Theory versus Stakeholder Theory

Stockholder theory and stakeholder theory are two theories covering business ethics and CSR. Both include how corporate managers should act in their organisations, but each has its own view on approaches. Stockholder theory stresses that the stockholders' interest must be the first priority, whilst the other emphasises that stakeholders must be the first priority when managers make business decisions (Friedman, 1970; Freeman, 1984).

The stockholder theory suggests that a company should mainly use its resources and engage in activities that increase its profits. In other words, the management should only act in the interest of the shareholders. Friedman (1970) argues that a corporate executive is an employee of the owners of the business. The executive has a direct responsibility to her/his employers, which is to conduct the business in accordance with their requirements. In general, the uppermost requirement is to make as much money as possible. The key point is the view on the manager who is seen as an agent of the people who own the corporation, and her/his primary responsibility is to them. Only the shareholders are the ones the company should act socially responsible towards. Therefore, CSR activities are not seen

as necessary. A company donating to an organisation that helps those who suffer due to a natural disaster is an example of an engagement that will not increase the profit and thus do not increase the shareholder value. Instead, the shareholders should themselves decide how much and to whom they would like to donate to. This theory also suggests that an investment in CSR activities prevents the company from focusing on increasing the value to shareholders, and therefore it should lead to a decrease in the stock price (Friedman, 1970).

The stakeholder theory suggests that the shareholders or the owners of the company are not the only important stakeholders. Instead, other stakeholders such as employees, customers, suppliers, financiers and communities play an important role. The managers should be responsible for maximising the benefit of all stakeholders. This implies that companies should act responsibly towards the society as well. CSR efforts could help businesses in obtaining necessary resources or stakeholder support. These efforts may not only reduce the company's environmental footprint but also attract new customers and help the company to gain competitive advantage (Freeman, 1984). An example supporting the stakeholder theory is that if a company does not value the relationship with its employees due to the higher costs it may imply, it could lead to a decreased productivity. In the end, this could hurt the company's profit. According to this theory, responsible companies should have a higher market value.

3.3.4 Motivational Systems

The behavioural approach system (BAS) and the behavioural inhibition system (BIS) are two motivational systems that impact investors' financial decision making (Muehlfeld et al., 2012). BAS is activated when rewards are given, for example when a monetary reward is expected. People with high BAS sensitivity are associated with engaging in goal-directed efforts. BIS is activated in conjunction with behaviour with potential negative consequences and signals of threats. High BIS sensitivity is associated with people having reduced goal-directed efforts. Individuals with different BIS and BAS sensitivity are assumed to react differently when new information is released about their investments. More specifically, it is shown that high BAS individuals trade more actively, prefer riskier investments and are able to generate higher profits. High BAS individuals are more likely to respond when new information about their holdings is released. In addition, BAS traders have the same strategy in events of negative and positive information, where they respond by buying more shares. The reason is that they associate positive news with a higher expected value and negative news are considered as an opportunity to compensate for the drop in value of their portfolios. High BIS people respond to positive news by buying more shares whereas negative news do not affect BIS people as much. Positive events are considered as a surprise and cause them to trade more. In contrast, negative news are considered as a confirmation of their negative views and thus do not affect them as much (Muehlfeld et al., 2012).

3.3.5 Heuristics and Biases

Information overload can cause people to have difficulties processing information in certain situations, as individuals seem to prefer situations in which there is an ease of processing. Information overload is characterised as a state of confusion and decision avoidance. In fact, information that is easy to understand is frequently perceived as more likely to be true (Reber & Schwarz, 1999).

Heuristics are decision rules that utilises a subset of the information set. People cannot analyse all contingencies and therefore use heuristics without even realising it. There are two types of heuristics: type 1 and type 2. The type 1 heuristic is reflexive and noncognitive. This type of heuristic is appropriate when a fast decision must be made or when the stakes are low. The type 2 heuristic is of a cognitive nature and requires more effort and is appropriate when the stakes are higher. Heuristics and biases can lead to investors paying too much attention to securities that are presented in the news. Investors will base their investment decision too much on recent news stories, even though there may be little evidence if this is a wise investment (Ackert & Deaves, 2009).

Familiarity Heuristic

People are more comfortable with the familiar and typically search for ways to avoid unrewarded risk. The familiarity heuristic is illustrated in the discoveries made by Heath and Tversky (1991). They conducted an experiment which included a series of general knowledge multiple choice questions (with four options). Heath and Tversky showed that people who believed that they had some knowledge in the questions were more likely to choose a gamble based on this knowledge rather than a random lottery. This was shown by the positive relationship between the percentage choosing the knowledge bet and the judged probability of being right on the questions. The experiment showed that people have a preference for the familiar (Heath & Tversky, 1991). The familiarity heuristic can be applied to various situations that individuals experience in their lives including investment decisions (Ackert & Deaves, 2009).

Overconfidence

Overconfidence is the tendency for individuals to overestimate the precision of their information, their knowledge and abilities, or to be overly optimistic about the future and their ability to control it. Overconfidence can appear in different forms: miscalibration, the better-than-average effect, illusion of control, and excessive optimism. Miscalibration is the tendency to believe that your knowledge is more precise than it actually is. The better-than-average effect is the tendency to rate yourself above average on certain positive personal attributes for example athletic skill (Ackert & Deaves, 2009). An illusion of control is shown when individuals believe that they have more control over events than objectively can be true, for example when dice players act as if they can control the out-

come of the dice roll (Nemeroff, 1995). Excessive optimism appears when individuals assign too high (low) probabilities to favourable (unfavourable) outcomes given their historical experience (Weinstein, 1980).

3.3.6 Differences in Risk Behaviour

Risk attitudes have been proven to differ between genders. It has been shown that women tend to be more risk averse and engage in fewer trades. The gender difference on the market have been explained by different attitudes towards ambiguity, competence and overconfidence (Fellner & Maciejovsky, 2007). Men show signs of overconfidence more often than women. Overconfidence often results in individuals having an illusion of control and being more optimistic. These individuals have an unrealistically positive perception of themselves and believe that they are more capable than the average person to make better financial decisions. Thus, the level of risk taking behaviour is higher amongst overconfidence investors (Broihanne et al., 2014).

Male and females tend to adopt different strategies in financial decision making. The reason is that males usually overvalue the current market state, whilst females tend to undervalue it. Further, men tend to include more information when making decisions and use multiple strategies. This results in longer decision-times for men. Females are usually more risk averse and therefore select a strategy with higher security and less uncertainty. On the other hand, men often choose the strategy which enables the best possible gains and thus has the highest risk. The difference in strategies can also be explained by different confidence levels between genders. The lower confidence level amongst females results in females more often than men to attribute their good financial performance to good luck. Therefore, they do not believe in their own ability to make good decisions and are less confident in taking more risk (Powell & Ansic, 1997).

3.3.7 Agency Theory

An agency relationship exists when one individual (the principal) contracts with another individual (the agent) to take actions on behalf of the principal and represent the principal's interests. In an agency relationship, the agent has authority to make decisions for the principal. Agency problems arise when the agent's and principal's incentives are not aligned. One such problem in corporates is conflicts of interests particularly between stockholders and managers. Shapiro (2005) argues that agents are prone to have numerous of principals whose interests they need to consider simultaneously. The principals' interest often differ from each other, which can create complications for the principal-agent relationships. However, the principal-agent-problem occurs if the agents disregard the principals' interest and thus only consider their own interests (Shapiro, 2005).

Agency costs due to principal-agent problems can be both indirect and direct. These costs arise when managers' incentives are not consistent with maximising the value of the corporate. Indirect costs are hard to measure and arise from a loss of opportunities. For example, managers of a corporation that is an acquisition target might resist the takeover due to concerns about keeping their employment, even though the shareholders would benefit from the merger. Direct costs include expenditures that benefit the manager but not the corporate. For example, purchasing a luxury jet for travel. Other direct costs arise from the need to monitor managers (Jensen & Meckling, 1979). Further, Beliveau et al. (1994) argue that if managers face the risk of losing their employees, this risk can be prevented with a good reputation arisen through an engagement in CSR. Thus, if managers engage in CSR to obtain a good reputation, the risk of losing their employees will be reduced but it can also disregard the interest of shareholders. Hence, a cause of agency costs (Beliveau et al., 1994).

4 Result

This section presents the results from the event study and the survey, which will later be used to answer the research questions.

4.1 Event Study

We will first present the results from the data collection including the newspaper sources, the distribution of negative and positive events, and the distribution of events across the three dimensions of CSR. Then we will present the average ARs and two-day CARs for the events, as well as the results from the testing procedure.

4.1.1 Data Collection

Table 1: The frequency of types of newspaper sources.

Newspaper	Frequency
Affärsvärlden	1
Aftonbladet	2
Dagens Industri	4
Dagens Nyheter	9
Expressen	2
Svenska Dagbladet	71
Sveriges Radio	8
Sveriges Television	1
Veckans Affärer	2
Total	100

The table reports the frequency of the newspaper sources in which the CSR events were found in. It illustrates that a large majority of the events were collected from Svenska Dagbladet.

Table 1 illustrates the newspaper sources in which the events were found in. We only used prominent newspaper sources to make sure that the events reached out to a great amount of people. A large majority of the events were found in Svenska Dagbladet, which is one of Sweden's largest newspapers with one million readers every day (Svenska Dagbladet Målgrupp, 2017).

Table 2: The frequency of positive and negative event types.

Type	Frequency
Negative Events	77
Positive Events	23

The table illustrates the frequency of negative and positive CSR events. The majority of the events in the study were negative.

In the search for events, more negative than positive events were found, as can be seen in Table 2. More specifically, 77 percent of the events were negative.

Table 3: The frequency of CSR dimensions.

Dimension	Frequency
Social	78
Environmental	23
Economic	6

The table shows the number of CSR events belonging to each CSR dimension: social, environmental and economic. Some events were found to belong to more than one dimension, and thus the total frequency is larger than 100.

The events were categorised according to the three dimensions of CSR; social, environmental and economic. Table 3 illustrates the number of news reports for each dimension. Some events covered more than one dimension and thus the total frequency in Table 3 is larger than 100. The majority of CSR events belonged to the social dimension.

4.1.2 Calculations of average AR and CAR

Table 4: The average abnormal returns and cumulative abnormal returns.

Type	$\overline{AR}_{T_1}(\%)$	$\overline{AR}_{T_2}(\%)$	$\overline{CAR}(\%)$
Negative Events	0.18	-0.36	-0.18
Positive Events	-0.35	-0.35	-0.70

The table reports the average AR in percent for the event day (T_1) and the day after (T_2), for 77 positive and 33 negative events respectively. The market model is used to calculate the normal return during 120 days prior to the event day, which is later used to calculate AR for each event. Further, the average AR gives the two-day average CAR for both types of events.

The average ARs and the average two-day CARs can be found in Table 4. For negative events, the return on the event day increased on average by 0.18 percent, and on the day after the event, it decreased on average by -0.36 percent. This resulted in an average two-day CAR of -0.18 percent for negative events, meaning that the effect of negative news on the stock price is overall negative. For positive news, the return decreased on average by -0.35 percent both on the event day and the day after, resulting in a -0.70 percent average two-day CAR. See section 8.1 in appendix for the ARs corresponding to each event.

4.1.3 Testing Procedure

Table 5: The results from the testing procedure on negative events.

Test	Test-statistic	Comment
BMP - test	-1.33	Fail to reject H_0
Generalised sign test	-1.16	Fail to reject H_0
Generalised rank test	1.86	Reject H_0

The table reports the test-statistic for the BMP-test, the generalised sign- and rank test on negative events. The null hypothesis for each test was a zero mean event effect. A 10 percent significance level was used, which means that the null hypothesis was rejected if the absolute value of the test-statistic was larger than 1.64.

Table 6: The results from the testing procedure on positive events.

Test	Test-statistic	Comment
BMP - test	-1.43	Fail to reject H_0
Generalised sign test	-0.21	Fail to reject H_0
Generalised rank test	0.91	Fail to reject H_0

The table reports the test-statistic for the BMP-test, the generalised sign- and rank test on positive events. The null hypothesis for each test was a zero mean event effect. A 10 percent significance level was used, which means that the null hypothesis was rejected if the absolute value of the test-statistic was larger than 1.64.

To test our hypothesis we performed two-tailed tests on negative and positive events, with the null hypothesis being $H_0 : \overline{CAR} = 0$. The null hypothesis was rejected if $|t| > 1.64$ (critical value). For negative events (see Table 5), the BMP-test and the generalised sign test failed to reject H_0 . The generalised rank test rejected H_0 on a 10 percent significance level. For positive events, all tests failed to reject H_0 on a 10 percent significance level, which is illustrated in Table 6.

4.2 Survey

The survey was sent to 490 Swedish private investors, among which 157 participated. This resulted in a 32 percent response rate, which is aligned with previously conducted surveys which have response rates varying from 20-50 percent (Nulty, 2008). We will first present background information about the respondents. This is illustrated in Figure 4-6. Further, we will present the results from the remaining questions for all responses, which is illustrated in Figure 7-9. Lastly, we will present the results for different categories: gender, age and trading habits. See section 8.2 in appendix for the questions asked in the survey.

4.2.1 Background Questions

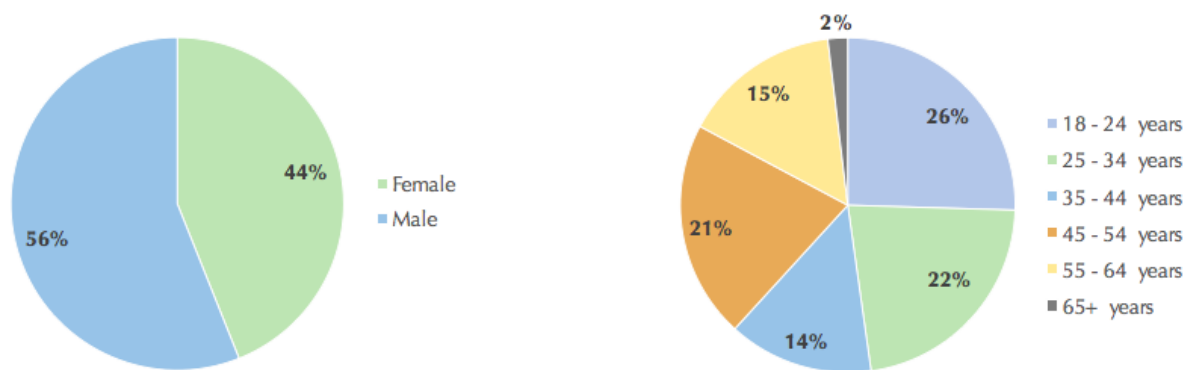


Figure 4: Respondents' gender and age.

The figure illustrates two pie charts. The one to the left shows the proportion of female and male respondents in our survey. The one to the right shows the respondents' age, where they had the opportunity to choose between six age spans.

The gender distribution was relatively equal with 44 percent females and 56 percent males. The respondents' age was evenly distributed among all categories except for the age span 65+ years. The largest group was 18-24 years, which 26 percent of the respondents belonged to.

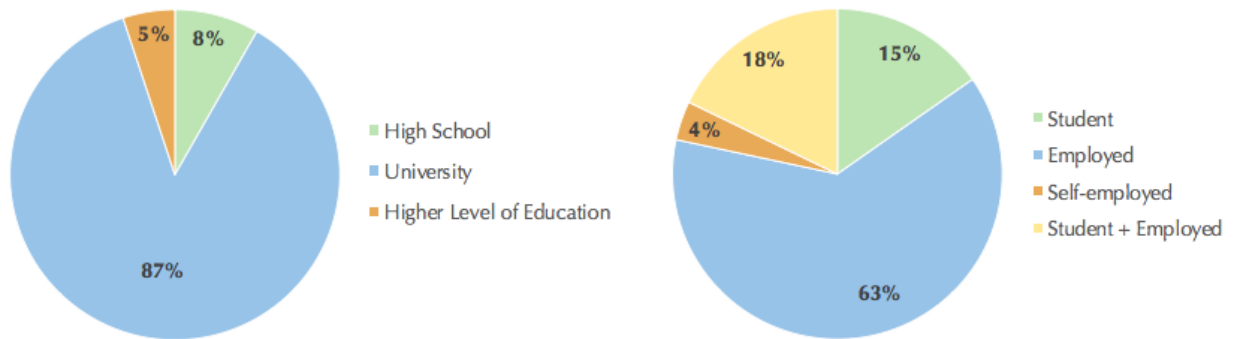


Figure 5: Respondents' education and occupation.

The figure illustrates two pie charts. To the left, one can see the distribution of respondents in our survey across different educational levels. The one to the right shows the occupation of the respondents.

A large majority of the respondents had an university degree. As for the remaining categories, 5 percent had a higher level of education and 8 percent had a high school degree. Regarding the occupation of the respondents, the majority were found to be employed. The second largest group consisted of respondents who were both students and employed, followed by students. 4 percent of the respondents were found to be self-employed. In addition, none of the respondents were found to be unemployed.

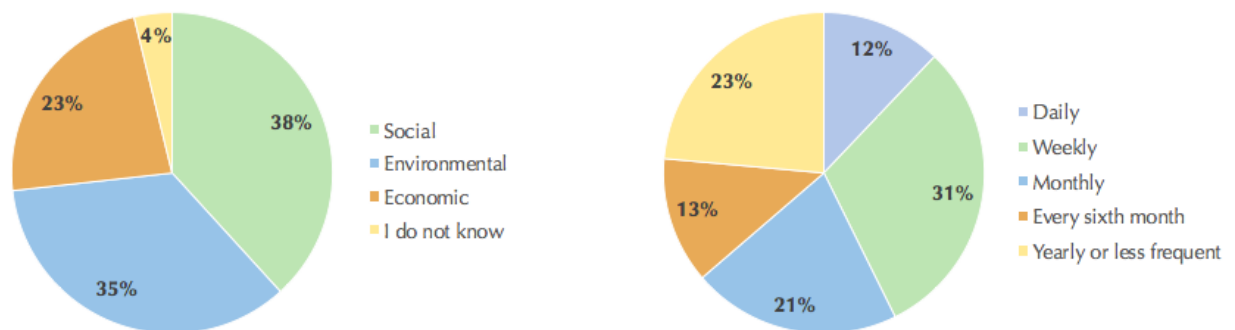


Figure 6: Respondents' opinion about the most important CSR dimension, and their trading habits.

The figure illustrates the respondents' beliefs of the most important CSR dimension. In addition, it shows how often they trade.

38 percent believed that the social CSR dimension is the most important one. Further, 35 percent selected the environmental dimension and 23 percent chose the economic one. The remaining 4 percent of the respondents did not decide. The distribution of the respondents' trading habits was relatively even, and the largest group was found to trade weekly.

4.2.2 Respondents' Attitude Towards CSR

Figure 7-9 illustrate the results for all respondents. This is followed by the results of the responses for each of the categories, which is illustrated in section 8.4 in appendix.

All Respondents

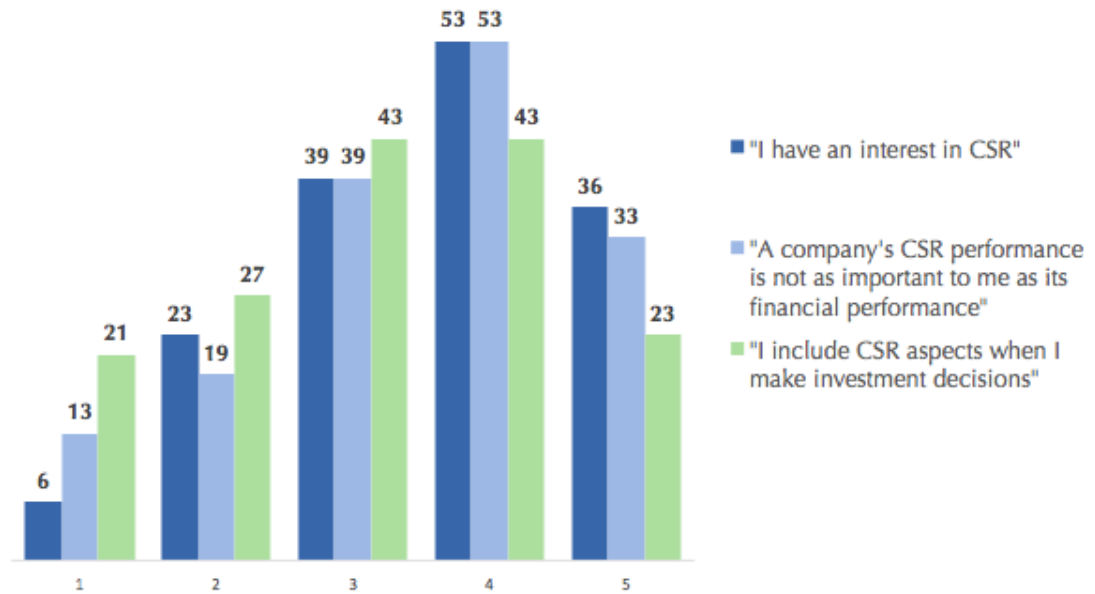


Figure 7: Respondents' level of agreement for different statements.

The figure illustrates how well the respondents in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

Figure 7 illustrates how well the respondents agree with three statements scaled from 1 to 5. The lowest scale (1) represents "disagree" and the highest (5) represents "agree". 57 percent of the responses were found in the higher levels of the scale for the statement "I have an interest in CSR". Regarding the statement "A company's CSR performance is not as important to me as its financial performance", 57 percent of the responses were found in the higher levels of the scale.

as important to me as its financial performance”, 55 percent chose 4 or 5 and 25 percent were indifferent. Lastly, 31 percent selected 1 or 2, and 42 percent selected 4 or 5 for the statement ”I include CSR aspects when I make investment decisions”.

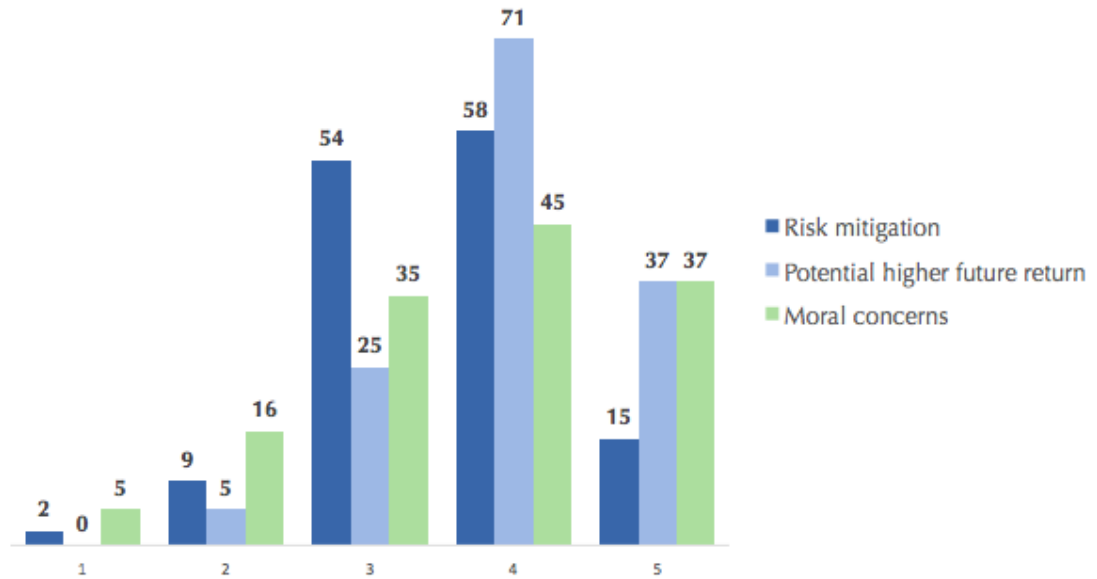


Figure 8: Respondents’ opinion about the importance of different aspects.

The figure illustrates the result when the respondents in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents ”not important” and 5 represents ”important”. 19 respondents claimed that they did not include CSR aspects in their investment decisions, and thus did not answer this question.

Figure 8 shows the respondents’ opinion about the importance of risk mitigation, potential higher future return and moral concerns when including CSR in their investment decisions. 12 percent of the respondents did not include CSR in their investment decisions at all. This question was scaled from 1-5, where the lowest scale (1) represents ”not important” and the highest (5) represents ”important”. Regarding the aspect ”risk mitigation”, 53 percent were found in the higher levels and 8 percent in the lower levels of the scale. The aspect ”potential higher future return” consisted of the most choices of 4 or 5 (78 percent), and only 4 percent chose 1 or 2. ”Moral concerns” had 59 percent and 15 percent on the higher and lower levels of the scale respectively.

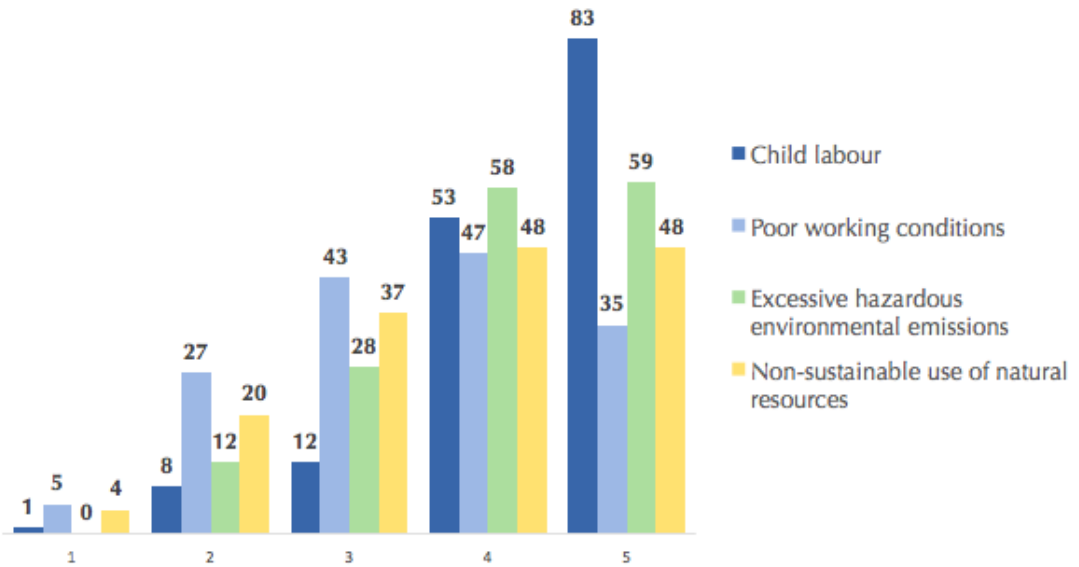


Figure 9: Respondents' view on refraining from investing in a firm involved in different activities.

The figure illustrates the result when the respondents in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

Figure 9 illustrates to what degree the respondents would refrain from investing in a company involved in four different activities: child labour, poor working conditions, excessive hazardous environmental emissions and non-sustainable use of natural resources. The lowest scale for each alternative (1) represents "disagree" and the highest (5) represents "agree". The activity "child labour" had the most choices of 4 or 5 (87 percent) and the least amount of 1 or 2 (6 percent). 52 percent selected 4 or 5, and 20 percent selected 1 or 2 for the activity "poor working conditions". As for "excessive hazardous environmental emissions", 75 percent of the responses were found in the higher levels of the scale and 8 percent in the lower ones. Lastly, 61 percent and 15 percent selected 4 or 5 and 1 or 2 respectively for the category "non-sustainable use of natural resources".

Gender

69 females and 88 males participated in the survey. 78 percent of the females chose 4 or 5 and 6 percent chose 1 or 2 when they were asked how well they agree with the statement "I have an interest in CSR". As for males, the corresponding amount was 40 percent and 28 percent. 22 percent of the females selected the lower levels of the scale and 41 percent chose

the higher levels for the statement "A company's CSR performance is not as important to me as its financial performance". The corresponding amounts for males were 18 percent for the lower levels and 66 percent for the higher levels. Lastly, for the statement "I include CSR aspects when I make investment decisions", 65 percent of the females and 24 percent of the males selected 4 or 5. The lower levels consisted of 14 percent of the females and 43 percent of the males. See Figure 10 and 13 in appendix for an illustration of this.

7 percent of the females did not include CSR in their investment decisions at all, compared to 16 percent of the males. Regarding the respondents' opinion about the importance of different aspects when including CSR in their investment decisions, 84 percent of the females chose 4 or 5 for the aspect "moral concerns". Further, 86 percent of the males were found in the higher levels regarding the aspect "potential higher future return". See Figure 11 and 14 in appendix for an illustration of this. Lastly, the majority of both genders would not invest in a firm involved in child labour, which can be seen in Figure 12 and 15 in appendix.

Age

The survey consisted of six different age spans: 18-24, 25-34, 35-44, 45-54, 55-64 and 65+ years. The category 65+ years consisted of only three respondents, and therefore is not appropriate for comparison with the remaining categories. For the statement "I have an interest in CSR", the respondents in each age span agreed more than they disagreed. For the statement "A company's CSR performance is not as important to me as its financial performance", the proportion choosing the higher levels of the scale for each age span was relatively equal varying from 51-59 percent. Regarding the statement "I include CSR aspects when I make investment decisions", all age spans except for 18-24 years had a larger proportion of respondents choosing 4 or 5 compared to 1 or 2. See Figure 31, 34, 37, 40 and 43 in appendix for an illustration of this.

A potential higher future return was considered to be the most important aspect when including CSR in investment decisions for all age spans. The aspect with the most chosen 4 or 5 was "potential higher future return" for all age spans. See Figure 32, 35, 38, 41 and 44 in appendix for an illustration of this. Lastly, the majority of all age spans would not invest in a firm involved in child labour, which can be seen in Figure 33, 36, 39, 42 and 45 in appendix.

Trading Habits

The categories of trading habits were: "daily", "weekly", "monthly", "every sixth month" and "yearly or less frequent". For the statement "I have an interest in CSR", the respondents in each category of trading habits agreed more than they disagreed. Regarding the statement "A company's CSR performance is not as important to me as its financial per-

formance”, the proportion choosing 4 or 5 was around 60 percent for all categories except for the category ”yearly or less frequent”, where the corresponding proportion was 24 percent. For the statement ”I include CSR aspects when I make investment decisions”, the proportion choosing 1 or 2 and 4 or 5 were relatively equal for categories ”daily”, ”weekly” and ”monthly”. As for ”every sixth month”, it had a significant larger proportion choosing 1 or 2. For ”yearly or less frequent”, the situation was reversed as the larger proportion chose 4 or 5. See Figure 16, 19, 22, 25 and 28 in appendix for an illustration of this.

Moral concerns were found to be the most important aspect when the respondents who trade yearly or less frequent include CSR in their investment decisions. For the ones trading daily, the aspect with the most chosen 4 or 5 was ”risk mitigation”. As for the rest, the corresponding aspect was ”potential higher future return”. For the categories ”yearly or less frequent” and ”every sixth month”, the aspect with the most chosen 1 or 2 was ”risk mitigation”. As for the remaining ones, the corresponding aspect was ”moral concerns”. See Figure 17, 20, 23, 26 and 29 in appendix for an illustration of this. Lastly, the majority of all categories of trading habits would not invest in a firm involved in child labour, which is illustrated in Figure 18, 21, 24, 27 and 30 in appendix.

4.2.3 Significance Tests on Differences Between Categories

The significance tests were conducted on a 10 percent significance level. In this section we will present some of the results. All results can be found in Table 10-14 in appendix.

We found significant differences between female and male respondents for all questions except for the one about refraining from investments in a company involved in child labour, and the importance of risk mitigation when including CSR. Further, a significant smaller proportion of respondents in the age span 18-24 years agreed with the statement ”I have an interest in CSR” compared to the age spans 35-44 and 55-64 years respectively. In addition, a significant smaller proportion of those who belong to the age span 18-24 years agreed with the statement ”I include CSR aspects when I make investment decisions” compared to those belonging to the age span 55-64 years. As for the different trading habits, a significant larger proportion of those who trade daily found risk mitigation to be an important aspect when including CSR in comparison with the ones who trade every sixth month. This group had instead a larger proportion choosing moral concerns compared to the ones who trade daily and weekly respectively. Moral concerns were also found to be chosen by a larger proportion of respondents who trade yearly or less frequent compared to the ones who trade weekly. Further, a significant smaller proportion of those who trade yearly or less frequent agreed with the statement ”A company’s CSR performance is not as important to me as its financial performance” compared to those who trade daily, weekly and monthly respectively.

5 Analysis

This section presents the analysis based on the results from the event study and the survey, as well as the literature review. The advantages and disadvantages of the method will be discussed.

5.1 Event Study

First, we will present an overview of the connection between the theory and results of our event study, which will be followed by an in-depth analysis.

- **Market Efficiency**

In this study we have assumed a semi-strong efficient market. This assumption may not hold in reality as it can take time for the market to react to the events.

- **Stockholder Theory versus Stakeholder Theory**

Our results suggest that a negative CSR event will lower the stock price. In addition, companies are pressured by regulations and consumer demand to include CSR into their businesses. Hence, our result supports the stakeholder theory.

- **Signaling Theory**

Our results partly supports the signaling theory, as negative events have a negative effect on stock prices. We have assumed a high signal observability, which can be questioned if the events have not been fully observed by the investors.

The generalised rank test on negative events allowed us to reject the null hypothesis of no mean event effect with a 10 percent significance level. We could not reject the null hypothesis when we performed the other two tests on negative events. In addition, all three tests on positive events failed to reject the null hypothesis. Therefore, conclusions can only be drawn for the generalised rank test on negative events and the analysis will focus on the result from it. The average two-day CAR for negative events was -0.18 percent, which suggests that there exists an effect of negative CSR events on the stock prices of OMX30 companies. This is consistent with our hypothesis about negative events.

We assumed a semi-strong efficient market, which means that a company's stock price reflects all public information, for example recent relevant information that is gained through annual reports and news. Despite this, in a semi-efficient market investors can take advantage of market anomalies to reach above average returns. However, this assumption might not hold in reality as it can take time for the market to react to the events. Consequently, the full effect of the events on stock prices might take a longer time to capture. However, a longer event window increases the risk of failing to isolate the effect from these specific events.

In alignment with the signaling theory, the investors in this study act as receivers who receive signals regarding companies' CSR information. The signaling theory explains that investors should act negatively when the signal is negative and positively otherwise. This is partly supported by our results as we found that negative events have a significant negative effect on stock prices. However, we cannot draw conclusions regarding the effect on positive events. One assumption made in this study is that the investors are updated on major news reports about the company they have ownership in, i.e. that the signal observability is high. This assumption can be questioned if this does not hold and investors have not fully observed the events during the event window. In this case, the effect of the events could have been higher.

One dilemma for managers when making business decisions in organisations is the choice to either prioritise the stockholders or the stakeholders. According to the stockholder theory, where stockholders are the number one priority, CSR investments will lower the stock price since it will prevent the company from focusing on increasing the value for stockholders. On the other hand, the stakeholder theory, in which the stakeholders are the highest priority, suggests that irresponsible companies will have a lower market value. Our results suggest that a negative CSR event will lower the stock price and thus supports the stakeholder theory. Further, companies are pressured to integrate CSR into their businesses due to regulations and consumer demand. In other words, they need to take the stakeholders into account when making business decisions. This means that even if our results would have turned out to be different and not have supported the stakeholder theory, these regulations would make it difficult for managers to only prioritise stockholders.

5.1.1 Comparison with Previous Research

The average two-day CAR for negative events was -0.18 percent. This is lower compared to previous research focusing on markets outside of Sweden. For example, Flammer (2012) found a two-day average CAR of -0.65 percent, and Klassen and McLaughlin (1996) found a three-day average CAR of -0.82 percent. However, their studies focused on the environmental dimension, which could have affected the results. In contrast, Aupperle et al. (1985) showed a negative correlation between CSR and stock prices, which is not consistent with our results. According to them, CSR activities increase costs and reduce profits. However, they did not take into account the possible increased revenues. Further, Lo and Sheu (2007) found that companies investing in CSR have higher stock prices. Our results could not be compared with this as we could not find a significant effect of positive events on stock prices.

5.1.2 Analysis of Method

In the testing procedure, we performed a BMP t-test, a generalised rank test and a generalised sign test. The BMP t-test has shown to outperform other parametric tests since it is more robust against cross-sectional variation (Harrington & Shrider, 2007). For this reason, the use of the BMP t-test has increased the accuracy of our results compared to the use of other parametric tests. To further strengthen our method, we also tested our results using non-parametric tests. When using one of the non-parametric test, the generalised rank test, we succeeded to reject the null hypothesis for negative events. Non-parametric tests tend to outperform parametric tests, which is why we can rely more on the results from the generalised rank test compared to the BMP t-test. The use of the generalised rank- and sign test has the advantage of being more robust to abnormal return serial correlation and event-induced volatility, compared to more traditional rank- and sign tests. In addition, these tests do not over-reject the null hypothesis when event dates are clustered (Kolari, 2011; Luoma, 2011).

The use of prominent newspapers increases the reliability of this study. By using these types of newspapers, the probability of more people receiving the information increases. However, the number of events in our study (100) could be considered as non-sufficient since the majority of the tests in our event study failed to reject the null hypothesis. The reasons for using 100 events are a limited data availability and a limited time frame for data collection. We did not have access to historical stock prices for some of the events that we found, which lead to an exclusion of these events. Thus, the generalisability in this study can be questioned. In addition, the limited access to data resulted in an uneven distribution of negative and positive events. This is not a coincidence since journalists tend to cover negative news more often than positive ones. A possible explanation is the consumer demand, as readers are more drawn to negative news and such reports have a higher demand (Trussler & Soroka, 2014). The lower number of positive events prevented us from rejecting the null hypothesis and drawing conclusions for these events.

Another observation regarding the data is that the number of events covering the social dimension of CSR is larger than the others. This could lower the generalisability, since the dimensions of CSR are not equally represented. The social dimension includes an integration of social concerns into the business operation. Examples of events in our study belonging to the social dimension covers child labour, working conditions, human rights and diversity. A common ground for all of these is the fact that they are directly linked to humanity. The familiarity heuristic explains that people are more comfortable with the familiar. This could be a possible reason for journalists covering this dimension the most, as it could have a higher demand.

We only used a two-day event window and it could be of interest to investigate if the result would differ when using a longer event window. However, previous research has shown that the results of a two-day event window are robust if instead one would use longer event windows. The results for different lengths of event windows were shown to be similar (Anderson-Weir, 2010; Flammer, 2012). This can be an indication that longer event windows could generate similar results as the two-day event window.

5.2 Survey

First, we will present an overview of the connection between the theory and results of our survey, which will be followed by an in-depth analysis.

- **Familiarity Heuristic**

The social dimension was found to be the most important one, and a possible reason for this is that it can be easier for people to relate to.

- **Motivational Systems**

BAS traders, who trade more often, were found to value financial performance higher than BIS traders, who trade less frequently. The reason for this is that BIS traders do not base their investments on only monetary rewards.

- **Differences in Risk Behaviour**

Males were found to expect a higher return when including CSR. This means that they accept a higher risk which is supported by the perception of males taking more risk than females in their investments. A possible reason for this can be a higher overconfidence among males.

- **Agency Theory**

Our results show that the investors' and companies' interests are aligned, which reduces agency costs that would have risen through the need of monitoring a conflict.

The number of respondents in the survey was 157. Most respondents considered the social CSR dimension to be the most important one, followed by the environmental dimension. The least amount of respondents considered the economic dimension to be the most important one. Further, a large majority of the participants would refrain from investing in a company involved in child labour, which is included in the social CSR dimension. Hence, our hypothesis of the social dimension to be seen as the most important one was found to be correct. This can be explained by the familiarity heuristic which suggests that individuals are more comfortable with the familiar. Since negative aspects that are included in the social dimension e.g. involvement in child labour, can be easier to relate to, it can lead to more people refraining from investing in companies that are engaged in such activities.

Our results suggest that the majority of the respondents (57 percent) have an interest in CSR. In addition, the proportion of respondents who include CSR aspects in their investment decisions was greater than those who do not. 78 percent of the respondents considered CSR in their investment decisions because they believe it will lead to a potential higher future return, and 53 percent considered it because they believe it will mitigate their investment risk. In addition, moral concerns are shown to not be an important aspect for the majority of respondents for including CSR. This indicates that our hypothesis that a potential higher future return is a major reason for individuals to consider CSR, was found to be correct. Our results suggest that the majority of investors are not willing to consider CSR exclusively due to moral aspects. In addition, even if the respondents have an interest in CSR, they consider a company's financial performance to be more important. This indicates that the respondents believe CSR is important, but would not sacrifice monetary benefits for it.

The two motivational systems that impact an investor's financial decision making are the behavioural approach system (BAS) and the behavioural inhibition system (BIS). BAS traders are characterised by trading more often and engaging in goal-directed efforts. On the contrary, BIS traders trade less often and have reduced goal-directed efforts. Our results indicate that those who trade less frequently (BIS traders) value moral concerns highly when including CSR in comparison to those who trade more frequently. In addition, a larger proportion of those who trade less often were found to believe that a company's CSR performance is at least as important as its financial one. This is supported by the theory of the two systems, as BIS traders have reduced goal-directed efforts and their investment decisions are not only based on monetary rewards.

Our results show that more females than males include CSR aspects in their investment decisions. Further, a larger proportion of females have a greater interest in CSR and believe that a company's CSR performance is at least as important as its financial one. Their reason for including CSR in their investment decisions was found to be mainly moral concerns. On the contrary, males find a company's financial performance to be more important and include CSR in their investment decision mainly due to a potential higher future return. By expecting a higher return, males should also accept a higher risk. In that sense, our results are consistent with the belief that males are willing to take more risk than females. A reason for accepting a higher risk could be an overconfidence among males. It has been documented that men show signs of overconfidence more often than women which can be a reason to why males and females adopt different strategies in their financial decisions. Our results are aligned with the perception of differences in risk behaviour among males and females. In addition, our hypothesis of women valuing CSR higher than men is supported by our results.

As previously mentioned, corporates are pressured to include CSR into their businesses. Some examples are the increased environmental regulations, and the increased attention in media regarding corporates' engagement in CSR. Further, the majority of the respondents were found to have an interest in CSR and a greater amount include CSR aspects in their investment decisions compared to those who do not. This indicates that the investors' and companies' interests are aligned, which reduces possible agency costs that would have risen through the need of monitoring a conflict caused by non-aligned interests.

5.2.1 Comparison with Previous Research

The study conducted by Milne and Chan (1999) showed that investors do not take corporate social disclosures into account when making investment decisions. This is not consistent with our result as it suggests that more respondents include CSR in their investment decisions than those who do not. Nath et al. (2012) found that women value CSR higher as they have a higher demand for CSR information than men. This result is consistent with ours, as we found that more female respondents have an interest in CSR and include it in their investment decisions compared to males.

Further, Scheuth (2003) and Nath et al. (2012) found that younger investors have a greater interest in CSR investments than older ones, which is not consistent with our result as it suggests that there is no difference in interest among different age spans. A larger part of the youngest participants in our survey (18-24 years) did not include CSR in their investment decisions compared to the age span 55-64 years. The older age span mostly consists of respondents belonging to the category "employed". On the other hand, the young age span was dominated by the categories "students" and "students + employed", which are two groups that are likely to earn less than individuals who work full-time. As a result, the younger participants might not afford to care too much about CSR in their investment decisions. Therefore it is possible that the younger participants instead prioritise other aspects than CSR.

Cheah et al. (2011) found that younger female investors tend to hold a broader knowledge in CSR than older ones, and that they disagree with the view that a company's social and environmental performance is not as important as its financial one. This is partly consistent with our results since the majority of the female respondents believe that a company's CSR performance is at least as important as its financial one. However, we could not analyse the responses for combinations of categories as each category in our survey did not consist of sufficiently many respondents. The age spans are examples of such categories.

Vyvyan et al. (2011) found that women have a more favourable attitude towards CSR than men, which is consistent with our results. However, they found that this favourable attitude is not shown in their actual investment decisions. Instead, both females and males

were found to base their decisions more on traditional criteria such as past performance. This is partly consistent with our result since it suggests that females have a greater interest in CSR. However, our results showed that females more often include CSR aspects when they make investment decisions which is not consistent with it.

Lastly, Rosen et al. (1991) found that the majority of the respondents in their study are unwilling to sacrifice financial return for socially responsible corporate behaviour. This is consistent with our result, as the majority of the respondents in our survey believed that a company's CSR performance is not as important as its financial one.

5.2.2 Analysis of Method

Our survey had a 32 percent response rate. This is aligned with previously conducted online surveys which have response rates varying from 20-50 percent (Nulty, 2008). We used Trosts' (2012) guidelines to design the questions in the survey, which increased the validity. The use of an online survey was found to be a good choice as it allowed us to reach a great amount of people in a simple way. A drawback was that we did not have the opportunity to explain a question if a respondent did not understand it completely. However, by using a test group and an iterative process, the risk of misinterpretation was decreased and thereby the accuracy of the responses could be higher. By not including rewards for participation, non-thought out answers could be avoided and the accuracy of the responses could be increased. Even though rewards might have attracted more respondents, we considered the risk of non-accurate answers to be too high. In addition, the use of the same scale (1-5) for the scaled questions was found to be a good idea, since it facilitated for comparison of answers across questions.

The distribution of genders in our survey was relatively even, and therefore both genders were well represented. This made it accurate to compare results between female and male respondents. In addition, all age spans were relatively evenly distributed except for the age span 65+ years which only consisted of three participants. This age span is thus not fairly represented in our results. Further, a significant large majority of the respondents had an university degree. Therefore our results represent this category the most compared to the other educational levels. Due to the poor representation of the remaining categories, we do not believe it is appropriate to compare the survey answers between respondents with different educational levels. Consequently, we could not test a part of our hypothesis which was that that individuals with a higher educational level will have a greater interest in CSR.

All categories of trading habits were relatively evenly distributed. Thus, we found it accurate to compare the survey answers between respondents with different trading habits. Further, a significant large majority of the respondents were employed. Therefore our results represent this category the most compared to the other occupation categories. More specifically, the categories "student" and "student+employed" were moderately represented. The category "self-employed" was not fairly represented, and the category "unemployed" was not represented at all. Due to this, we do not believe it is appropriate to compare the survey answers between respondents with different occupations.

When comparing female and male responses, the majority of the differences were found to be significant. This allowed us to make accurate comparisons and draw conclusions. However, the differences in responses within the age spans and the trading habits respectively did not show as many significant results. However, the ones that were found to be significant have been previously discussed. A possible explanation is that there were more types of age spans and trading habits compared to genders. As a result, each type of age span and trading habit consisted of fewer responses, which makes it difficult to reject the null hypothesis of no mean difference.

6 Conclusions, Implications and Future Research

This section presents the conclusion from the results and analysis. The research questions will be answered. This section will also present implications and suggestions on future research regarding possible extensions of our study.

6.1 Answering the Research Questions

The purpose of this study was to investigate if CSR events affect stock prices of listed Swedish companies belonging to OMX30, and to investigate the attitudes towards CSR among Swedish private investors. To answer the main research question, an event study was performed consisting of 100 events. Further, a survey was sent to 490 Swedish private investors to answer the follow-up question.

The research question to be answered is:

”Is there an effect of CSR events on stock prices of listed Swedish companies belonging to OMX30?”

All the tests in the testing procedure for both types of events, except for the generalised rank test on negative events, failed to reject the null hypothesis of no mean effect. Therefore, conclusions can only be drawn for the generalised rank test on negative events. Further, the average two-day CAR was found to be -0.18 percent for negative events, which is lower than the results from previous research focusing on markets outside of Sweden. The generalised rank test has been shown to outperform parametric tests and thus its results cannot be neglected. By including a larger amount of events in this study, the generalised rank test might have succeeded to reject the null hypothesis on a lower significance level than 10 percent. In addition, the remaining tests might have shown different results.

The follow-up question to be answered is:

”What are the attitudes towards CSR among Swedish private investors?”

In general, the social CSR dimension was found to be seen as the most important one. The majority of the participants were found to have an interest in CSR, and a greater amount of respondents include CSR aspects in their investment decisions compared to those who do not. The main underlying reason for respondents to include CSR in their investment decisions is a potential higher future return and the least considered aspect is moral concerns. Even if the respondents have an interest in CSR, they consider a company’s financial performance to be more important.

Our results suggest that a larger proportion of female respondents have a greater interest in CSR and include CSR aspects in their investment decisions compared to males. A greater amount of female participants believe that a company's CSR performance is at least as important as its financial one compared to males. In addition, moral concerns and a potential higher future return were found to be the main underlying reasons for females and males respectively to include CSR in their investment decisions. Further, a significant smaller proportion of respondents in the age span 18-24 years have an interest in CSR compared to the age spans 35-44 and 55-64 years respectively. In addition, a significant smaller proportion of those who belong to the age span 18-24 years include CSR aspects when they make investment decisions compared to those belonging to the age span 55-64 years. Our results suggest that the main underlying reason for respondents to include CSR is risk mitigation for the ones who trade more often and moral concerns for those who trade less often. Lastly, a larger proportion of those who trade less often believe that a company's CSR performance is at least as important as its financial one, compared to those who trade more often.

6.2 Implications

The effect of negative CSR events on stock prices together with the observed attitudes towards CSR among Swedish private investors, are followed by implications. Our results bring an increased awareness and knowledge in CSR, which can affect corporates, investors and different regulatory authorities.

6.2.1 Main Research Question

Our results show that negative CSR events have an effect on stock prices. This knowledge can be useful for companies when they develop their strategies. Our results suggest that companies should be aware of how their actions are signaled to the public and that they should avoid giving the media an opportunity to portray them negatively. As previously mentioned, our results support the stakeholder theory. Consequently, a managerial implication is that managers should prioritise all stakeholders when making decisions. In addition, investors can use our findings in their investment decisions. More specifically, investors can consider the risks of investing in companies that are likely to act irresponsible.

Studies have shown that consumers are willing to pay more for sustainable goods (Nielsen, 2015). This should give companies incentives to engage in CSR since they can experience an increase in sales. At the same time, if the trend of an increasing number of regulations continues, companies will be forced to engage in CSR in the future. If companies continuously integrate CSR into their businesses, the probability of meeting these regulations increases. These companies can avoid an aggregated large cost caused by failing to meet regulations. In addition, some regulations might punish companies for acting irresponsibly.

For example, companies with excessive hazardous environmental emissions can receive a fee. This is aligned with Dechant et al. (1994) who suggested that the focus on environmental issues would make it easier for firms to meet future requirements and therefore reduce costs. The combination of avoiding the mentioned costs and an increase in sales when engaging in CSR, can lead to corporates experiencing a higher profit in the long run which should be reflected in the stock price.

6.2.2 Follow-up Question

Our study suggest that there exist differences in attitudes towards CSR among Swedish private investors. By acknowledging these differences, financial advisers can develop relevant consultations and targeted strategies. For example, since female private investors were found to value CSR more highly compared to males, financial advisers can make sure to include CSR aspects in the consultation for this group. The increased external pressure on companies to engage in CSR reflects the growing importance of CSR investments. By increasing the representation of females in a company, the CSR issue can possibly receive more attention as our findings suggest that females have a greater interest in CSR than males. This could in turn facilitate for corporates to meet the increased external pressures.

Our findings can give fund managers an increased knowledge in how to attract investors. For example, the proportion of respondents who include CSR aspects in their investment decisions was greater than those who do not. This can give incentives to fund managers to include CSR aspects in their strategies. More specifically, the social CSR dimension was found to be considered as the most important one. In addition, a large majority of the participants was found to refrain from investing in a company involved in child labour. Therefore, we suggest that fund managers uppermost avoid investments which are not aligned with the social dimension.

The external pressure on firms to engage in CSR forces the management to focus on it. In addition, our results suggest that Swedish private investors have an interest in CSR, and a larger proportion of this group was found to include CSR aspects in their investment decisions compared to those who do not. This suggests that the investors' interests are aligned with the managements'. However, our results show that Swedish investors find financial performance to be more important than CSR performance. If firms fail to increase their revenues whilst investing in CSR activities, they might fail to attract investors as there are costs associated with CSR investments. Lastly, our findings can be used as a support for governments and other regulatory authorities, who desire an increased consideration of CSR in the society, to convince firms to invest in CSR activities.

6.3 Future Research

For future research, the generalisability can be increased by including more events in the event study. This will affect the testing procedure as it can increase the probability of being able to reject the null hypothesis. To successfully include more events we recommend that future researchers make sure to have access to historical stock prices from sources other than the available free ones e.g. Yahoo Finance. In our experience, Yahoo Finance could not provide us with historical stock prices for some events, which forced us to exclude these events. In addition, to get a better understanding of the relationship between stock prices and CSR events, future researchers can study the events of other companies than those belonging to OMX30. For example investigate the effects for large versus small firms. In addition, it can be interesting to study the long-term effects on stock prices, as our study focused on the short-term effects.

As for the survey, the generalisability can be increased by having a larger sample and a better representation of each category. It could also be interesting to include additional categories e.g. income levels. In addition, future researchers can investigate the attitudes of other types of Swedish investors than private ones e.g. institutional investors, and study the differences between them. To minimise the risk of respondents misinterpreting questions, it could be beneficial to combine the survey with interviews. However, that can be time consuming. In addition, it can be interesting for future research to study in what way firms can encourage investors to increase their attention towards CSR. This knowledge can be valuable due to the increased external pressures for firms to engage in CSR activities.

7 References

- Ackert, L.F. & Deaves, R. (2009). *Behavioral Finance - Psychology, Decision-Making, and Markets*. Mason: South Western Cengage Learning.
- Allen, D.T. & Shonnard, D.R. (2011). *Sustainable Engineering: Concepts, Design and Case Studies*. Upper Saddle River, NJ: Prentice Hall.
- Almenberg, J. & Dreber, A. (2015). Gender, Stock Market Participation and Financial Literacy. *Economics Letters*, 137(737), 140-142.
- Anderson-Wier, C.H. (2010). How Does the Stock Market React to Corporate Environmental News? *Undergraduate Economic Review*, 6(1).
- Aupperle, K., Carroll, A. & Hatfield, J. (1985). An Empirical Examination of the Relationship between Corporate Social Responsibility and Profitability. *The Academy of Management Journal*, 28(2), 446-463.
- Beliveau, B., Cottrill, M. & O'Neill, H.M. (1994). Predicting Corporate Social Responsiveness: A Model Drawn from Three Perspectives. *Journals of Business Ethics*, 13(9), 731-738.
- Bergmark, R.R. & Norbergh, E. (2015). Barn producerar kläder åt H&M. [Electronic]. *SVT*, March 12. Available: <<https://www.svt.se/nyheter/lalalaal>> [2017-05-19].
- Bird, R., Hall, A.D., Momente, F. & Reggiani, F. (2007). What Corporate Social Responsibility Activities are Valued by the Market? *Journal of Business Ethics*, 76(2), 189-206.
- Boehmer, E., Masumeci, J. & Poulsen, A. (1991). Event-study Methodology Under Conditions of Event-induced Variance. *Journal of Financial Economics*, 30(2), 253-272.
- Broihanne, M.H., Merli, M. & Roger, P. (2014). Overconfidence, Risk Perception and the Risk-taking Behavior of Finance Professionals. *Finance Research Letters*, 11(2), 64-73.
- Boje, D.M. (2015). *Organizational Change and Global Standardization: Solutions to Standards and Norms Overwhelming Organizations*. Routledge.
- Cellier, A. & Chollet, P. (2016). The Effects of Social Ratings on Firm Value. *Research in International Business and Finance*, 36(C), 656-683.

- Cheah, E., Jamali, D. Johnson, J. & Sung, M. (2011). Drivers of Corporate Social Responsibility Attitudes: The Demography of Socially Responsible Investors. *British Journal of Management*, 22, 305-323.
- Collis, J. & Hussey, R. (2014). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. Palgrave.
- Connelly, B., Certo T., Ireland, R.D. & Reutzel, C.R. (2011). Signaling Theory: A Review and Assessment. *Journal of Management*, 37(1), 39-67.
- Cowan, A.R. (1992). Nonparametric Event Study Tests. *Review of Quantitative Finance and Accounting*, 2(4), 343-358.
- CSR Sweden*. [Electronic]. Available: <http://www.csrsweden.se/rapportering/> [2017-05-19]
- Davis, K. (1973). The Case For and Against Business Assumption of Social Responsibilities. *Academy of Management Journal*, 16(2), 312-322.
- Dechant, K., Altman, B., Downing, R.M. & Keeney, T. (1994). Environmental Leadership: From Compliance to Competitive Advantage. *Academy of Management Executive*, 8(3), 7-20.
- El Ghoul, A., Guedhami, O., Kwok, C. & Mishra, D. (2011). Does Corporate Social Responsibility Affect the Cost of Capital? *Journal of Banking and Finance*, 35(9), 2388-2406.
- Fama, E.F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *Journal of Finance*, 25(2), 383-417.
- Fellner, G. & Maciejovsky, B. (2007). Risk Attitude and Market Behaviour: Evidence from Experimental Asset Markets. *Journal of Economic Psychology*, 28(3), 338-350.
- Flammer, C. (2012). *Corporate Social Responsibility and Stock Prices: The Environmental Awareness of Shareholders*. MIT Sloan School of Management.
- Freeman, E.R. (1984). *Strategic Management: A Stakeholder Approach*. Cambridge University Press.

- Friedman, M. (1970). The Social Responsibility of Business is to Increase its Profits. [Electronic]. *New York Times Magazine*, September 13. Available: <<http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html>> [2017-05-19].
- Friedman, M. (2002). *Capitalism and Freedom*. University of Chicago Press.
- Frooman, J. (1997). Socially Irresponsible and Illegal Behavior and Shareholder Wealth. *Sage Journals*, 36(3).
- Grankvist, P. (2012). *CSR i praktiken*. Liber.
- GRI. (2014). *Sustainability and reporting trends*. Global Reporting Initiative.
- Harrington, S.E. & Shrider, D. (2007). All Events Induce Variance: Analyzing Abnormal Returns when Effects Vary Across Firms. *Journal of Financial and Quantitative Analysis*, 42(1), 229-256.
- Hassel, L., Nilsson, H. & Nyquist, S. (2005). The Value Relevance of Environmental Performance. *European Accounting Review*, 14(1), 41-61.
- Hassel, L., Nilsson, H. & Semenova, N. (2010). The Value Relevance of Environmental and Social Performance: Evidence from Swedish SIX 300 Companies. *Liiketaloudellinen Aikakauskirja*, 3, 265-292.
- Heath, C., & Tversky, A. (1991). Preference and Belief: Ambiguity and Competence in Choice Under Uncertainty. *Journal of Risk and Uncertainty*, 4(1), 5-28.
- Jensen, M.C. & Meckling, W.H. (1979). Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure. *Journal of Financial Economics*, 3, 305-360.
- Klassen, R.D. & Mclaughlin, C.P. (1996). The Impact of Environmental Management on Firm Performance. *Management Science*, 42(8), 1199-1214.
- Kolari, J.W. (2011). Nonparametric Rank Tests for Event Studies. *Journal of Empirical Finance*, 18(5), 953-971.

- Kothari, S.P. & Warner J.B. (2007). Econometrics of Event Studies. *Handbook of Corporate Finance*, 1, 3-36.
- Ljungdahl, H.L & Larsson, L.O. (2008). *CSR:från risk till värde*. Lund: Studentlitteratur.
- Lo, S.F. & Sheu, H.J. (2007). Is Corporate Sustainability a Value-Increasing Strategy for Business? *Corporate Governance: An international review* 15(2), 345-358.
- Luoma, T. (2011). *A Sign Test of Cumulative Abnormal Returns in Event Studies Based on Generalized Standardized Abnormal Returns*. Department of Mathematics and Statistics. University of Vaasa.
- MacKinlay, C.A. (1997). Event Studies in Economics and Finance. *Journal of Economic Literature*, 35(1), 13-39.
- Mallin, C., Michelon, G. & Raggi, D. (2013). Monitoring Intensity and Stakeholders Orientation: How Does Governance Affect Social and Environmental Disclosure? *Journal of Business Ethics*, 114(1), 29-43.
- Marinelli, N., Mazzoli, C. & Palmucci, F. (2016). How Does Gender Really Affect Investment Behaviour? *Economic Letters*, 151, 58-61.
- McKinsey. (2010). *How Companies Manage Sustainability*. [Electronic]. Available: <<http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/how-companies-manage-sustainability-mckinsey-global-survey-results>>. [2017-05-18].
- McWilliams, A. & Siegel, D.S. (2001). Corporate Social Responsibility: A Theory of the Firm Perspective. *The Academy of Management Review*, 26(1), 117-127.
- Milne, M.J. & Chan, C.C. (1999). Narrative Corporate Social Disclosures: How Much of a Difference Do They Make to Investment Decision-Making.

8 Appendix

8.1 Abnormal Returns for the Event Window Period

Table 7: Abnormal returns for negative events i .

i	$AR_{T_1}(\%)$	$AR_{T_2}(\%)$
1	-1.40	-0.90
2	1.00	-1.30
3	-0.60	0.50
4	0.50	0.40
5	1.60	0.40
6	0.10	-0.30
7	-0.70	1.20
8	-0.80	-0.30
9	0.10	-0.20
10	0.20	0.60
11	-1.00	-1.60
12	-0.20	0.60
13	1.30	1.80
14	-1.50	-0.90
15	-2.00	-0.90
16	1.20	-0.70
17	1.60	-1.80
18	3.20	0.40
19	0.90	-0.10
20	-0.80	-1.40
21	-3.30	1.90
22	3.50	-4.60
23	1.70	-2.80
24	6.50	-8.60
25	-2.90	-0.30
26	0.80	-4.30
27	-3.20	-0.60
28	2.20	1.00
29	1.20	-0.60

The table reports the AR in percent for the event day (T_1) and the day after (T_2), for negative events 1 to 29.

Table 8: *cont.* Abnormal returns for negative events i .

i	$AR_{T_1}(\%)$	$AR_{T_2}(\%)$
30	-0.30	-0.50
31	1.90	2.50
32	1.00	-2.40
33	2.10	-0.90
34	-0.10	0.80
35	-0.80	1.20
36	0.10	0.50
37	0.90	-0.80
38	0.20	-2.00
39	-2.80	0.30
40	-1.40	0.70
41	-1.30	1.00
42	-1.40	-0.50
43	0.40	-0.30
44	0.00	-0.60
45	0.30	0.20
46	0.80	-1.80
47	-0.10	-0.60
48	-0.30	-0.70
49	-1.20	-0.50
50	-3.20	-1.50
51	0.20	-1.20
52	-0.80	1.00
53	-0.10	-1.20

The table reports the AR in percent for the event day (T_1) and the day after (T_2), for negative events 30 to 53.

Table 9: *cont.* Abnormal returns for negative events i .

i	$AR_{T_1}(\%)$	$AR_{T_2}(\%)$
54	0.70	0.80
55	3.80	1.80
56	3.90	3.20
57	0.30	-0.20
58	-0.40	0.50
59	0.50	0.20
60	0.40	-0.90
61	-1.40	-0.80
62	1.20	0.40
63	-0.70	-0.20
64	0.10	0.60
65	-0.80	-0.90
66	-0.10	-1.00
67	0.00	1.80
68	-0.70	-0.40
69	-1.60	-0.30
70	-1.50	-2.40
71	2.30	0.10
72	-0.10	-0.60
73	-0.30	-0.80
74	-1.60	0.90
75	-0.80	-0.10
76	0.30	0.10
77	0.00	0.00

The table reports the AR in percent for the event day (T_1) and the day after (T_2), for negative events 54 to 77.

Table 10: Abnormal returns for positive events i .

i	$AR_{T_1}(\%)$	$AR_{T_2}(\%)$
78	-0.23	0.79
79	-0.07	0.38
80	-1.66	-5.22
81	1.50	-0.26
82	-0.08	0.36
83	-0.18	-2.51
84	-0.10	1.78
85	0.11	-0.06
86	0.14	0.00
87	1.32	-2.21
88	-0.17	-1.05
89	-5.12	-0.98
90	-0.68	-0.53
91	0.93	0.23
92	-0.14	-0.94
93	-1.09	0.41
94	-1.48	0.81
95	0.68	0.66
96	-1.67	0.52
97	0.33	-0.69
98	-0.16	-0.71
99	-0.10	0.28
100	0.38	1.48

The table reports the AR in percent for the event day (T_1) and the day after (T_2), for positive events.

8.2 Questions in Survey

Investors' attitude towards Corporate Social Responsibility (CSR)

This survey will be used in a master thesis at KTH which includes an investigation of Swedish investors' attitude towards CSR issues.

Corporate Social Responsibility (CSR)

CSR is often divided into three dimensions: social, economic and environmental. The social dimension includes contributing to a better society by integrating social concerns into the business operation. One example is to not use child labour in the operation. The economic dimension is about contributing to economic development by for example using resources in a sustainable way. Lastly, the environmental dimension involves contributing to a better environment and having an operation that minimizes negative effects on global warming.

Background questions

1. Age

Mark only one oval.

- 18 - 24 years
- 25 - 34 years
- 35 - 44 years
- 45 - 54 years
- 55 - 64 years
- 65+ years

2. Gender

Mark only one oval.

- Male
- Female
- Other

3. Educational level

Mark only one oval.

- Elementary school
- High School
- University
- Higher level of education

4. Occupation

Mark only one oval.

- Student
- Employed
- Self-employed
- Unemployed
- Student + employed

5. How often do you trade stocks?

Mark only one oval.

- Daily
- Weekly
- Monthly
- Every sixth month
- Yearly or less frequent

6. Which of the following dimensions of CSR do you consider to be most important in general? (see description in introduction)

Mark only one oval.

- Environmental
- Economic
- Social
- I do not know

Please express how well you agree with the following statements

7. I have an interest in CSR.

Mark only one oval.

	1	2	3	4	5	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

8. A company's CSR performance is not as important to me as its financial performance.

Mark only one oval.

	1	2	3	4	5	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

9. I include CSR aspects when I make investment decisions.

Mark only one oval.

	1	2	3	4	5	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

How important do you consider the following aspects when including CSR in your investment decisions?

I do not include CSR in my investment decisions. Continue to the next question

10. Risk mitigation

Mark only one oval.

	1	2	3	4	5	
Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Important

11. Potential higher future returns

Mark only one oval.

	1	2	3	4	5	
Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Important

12. Moral concerns

Mark only one oval.

	1	2	3	4	5	
Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Important

I would refrain from investing in a company involved in...

13. Child labour

Mark only one oval.

	1	2	3	4	5	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

14. Poor working conditions

Mark only one oval.

	1	2	3	4	5	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

15. Excessive hazardous environmental emissions

Mark only one oval.

	1	2	3	4	5	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

16. Non-sustainable use of natural resources

Mark only one oval.

	1	2	3	4	5	
Disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Agree

Additional comments

8.3 Significance Test of Survey Results

Table 11: Test statistics from significance tests on survey results.

	Females vs Males	18-24 vs 25-34	18-24 vs 35-44	18-24 vs 45-54	18-24 vs 55-64
Q7	5.61	-0.89	-2.02	-1.64	-1.75
Q8	-2.26	0.30	-0.82	-0.74	-0.33
Q9	5.33	-1.10	-1.33	-1.43	-1.98
Q10	-1.04	-0.20	-2.62	-1.78	-1.29
Q11	-3.92	-0.18	0.07	0.52	0.92
Q12	5.49	-0.41	1.02	1.65	1.08
Q13	0.95	0.00	-0.43	1.88	0.81
Q14	2.78	-0.62	0.64	1.14	1.55
Q15	2.45	-0.98	-0.95	-0.37	-0.20
Q16	3.15	-2.15	-3.01	-2.48	-1.47
Degrees of Freedom	155	73	60	71	62
Critical Value	1.65	1.66	1.67	1.66	1.67

Test statistics from each significance test on differences in responses between categories for each question in the survey, along with the corresponding degrees of freedom and critical value. The significance level was 10% for all tests.

Table 12: *cont.* Test statistics from significance tests on survey results.

	25-34 vs 35-44	25-34 vs 45-54	25-34 vs 55-64	35-44 vs 45-54	35-44 vs 55-64
Q7	-1.10	-0.65	-0.80	0.56	0.38
Q8	-0.99	-0.94	-0.55	0.10	0.43
Q9	-0.35	-0.40	-0.95	-0.04	-0.56
Q10	-2.18	-1.38	-0.94	1.13	1.18
Q11	0.23	0.70	1.07	0.43	0.84
Q12	1.28	1.90	1.38	0.42	-0.05
Q13	-0.44	0.87	0.82	1.41	1.41
Q14	1.27	1.81	2.35	0.37	0.77
Q15	-0.04	0.64	0.67	0.67	0.69
Q16	-1.17	-0.32	0.54	0.91	1.72
Degrees of Freedom	55	66	57	53	44
Critical Value	1.67	1.67	1.67	1.67	1.68

Test statistics from each significance test on differences in responses between categories for each question in the survey, along with the corresponding degrees of freedom and critical value. The significance level was 10% for all tests.

Table 13: *cont.* Test statistics from significance tests on survey results.

	45-54 vs 55-64	Daily vs Every 6th Month	Daily vs Monthly	Daily vs Weekly
Q7	-0.19	1.89	1.11	1.40
Q8	0.33	-0.04	0.91	-0.39
Q9	-0.50	1.23	-0.57	-0.45
Q10	0.23	1.88	2.27	2.65
Q11	0.51	-1.28	-0.09	-0.47
Q12	-0.51	-1.96	-0.40	-0.42
Q13	0.02	-1.02	0.20	0.78
Q14	0.41	-3.70	-2.16	-1.88
Q15	0.12	0.00	0.42	0.55
Q16	0.88	1.45	1.74	1.23
Degrees of Freedom	55	37	50	65
Critical Value	1.67	1.68	1.67	1.67

Test statistics from each significance test on differences in responses between categories for each question in the survey, along with the corresponding degrees of freedom and critical value. The significance level was 10% for all tests.

Table 14: *cont.* Test statistics from significance tests on survey results.

	Daily vs Yearly	Every 6th Month vs Monthly	Every 6th Month vs Weekly
Q7	-0.17	0.28	-0.69
Q8	3.91	-1.33	-0.37
Q9	-1.99	-0.44	-1.78
Q10	0.74	1.08	0.01
Q11	-0.09	-0.83	0.95
Q12	-5.29	-0.83	1.95
Q13	-2.04	-0.06	1.96
Q14	-7.02	-1.05	1.97
Q15	-2.02	-0.65	0.53
Q16	-0.41	-0.66	-0.33
Degrees of Freedom	54	51	66
Critical Value	1.67	1.67	1.67

Test statistics from each significance test on differences in responses between categories for each question in the survey, along with the corresponding degrees of freedom and critical value. The significance level was 10% for all tests.

Table 15: *cont.* Test statistics from significance tests on survey results.

	Every 6th Month vs Yearly	Monthly vs Weekly	Monthly vs Yearly	Weekly vs Yearly
Q7	-2.30	0.38	-1.49	-1.93
Q8	4.17	-1.63	3.17	5.60
Q9	-3.46	0.16	-1.45	-1.72
Q10	-1.22	0.27	-1.36	-1.79
Q11	1.21	-0.45	-0.01	0.43
Q12	-2.71	0.05	-4.78	-5.61
Q13	-0.58	0.63	-2.36	-3.43
Q14	-2.53	0.52	-4.04	-5.03
Q15	-1.91	0.02	-2.49	-3.13
Q16	-2.02	-0.83	-2.55	-2.00
Degrees of Freedom	55	79	68	83
Critical Value	1.67	1.66	1.67	1.66

Test statistics from each significance test on differences in responses between categories for each question in the survey, along with the corresponding degrees of freedom and critical value. The significance level was 10% for all tests.

8.4 Results from Survey for Different Respondent Categories

Gender

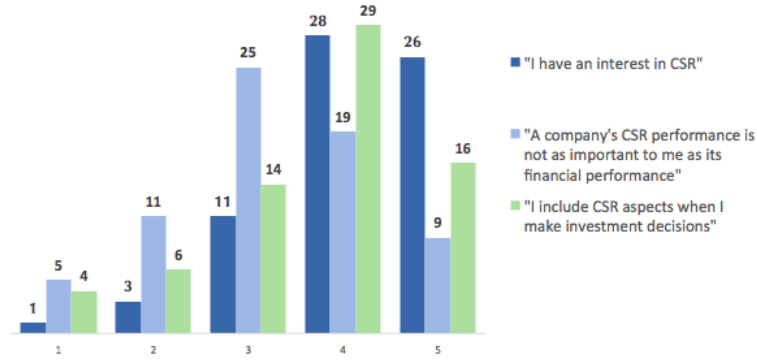


Figure 10: Respondents' level of agreement for different statements.

The figure illustrates how well the female respondents in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

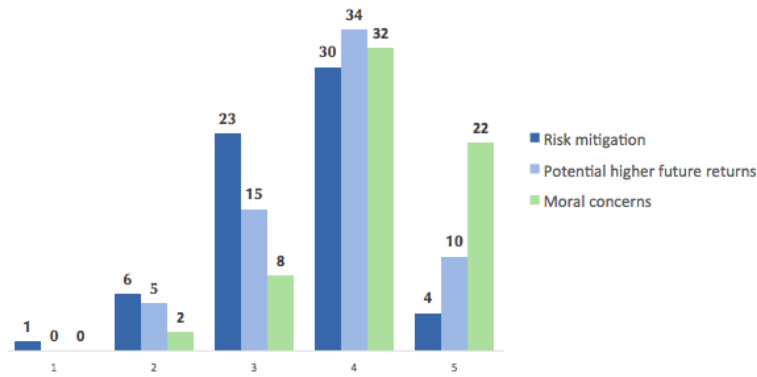


Figure 11: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the female respondents in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

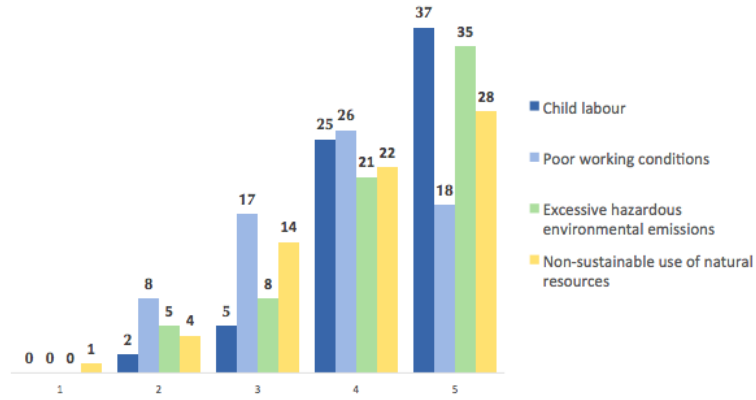


Figure 12: Respondents' view on refraining from investing in a company involved in activities.

The figure illustrates the result when the female respondents in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

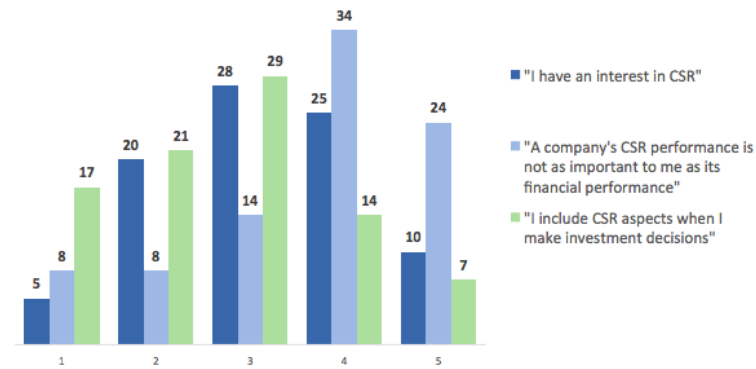


Figure 13: Respondents' agreement of different statements.

The figure illustrates how well the male respondents in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

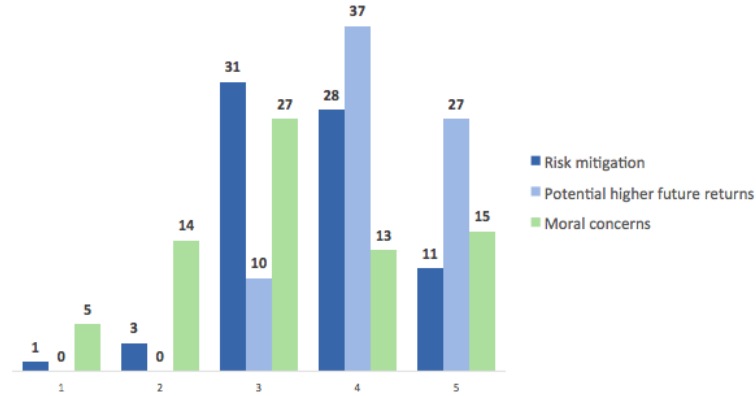


Figure 14: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the male respondents in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

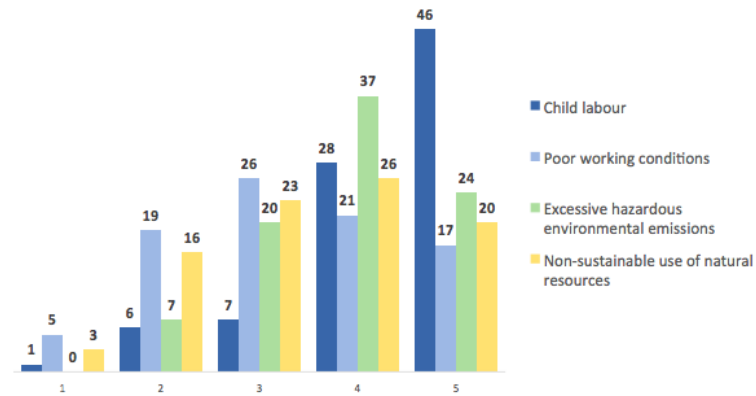


Figure 15: Respondents' view on refraining from investing in a company involved in activities.

The figure illustrates the result when the male respondents in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

Trading Habits

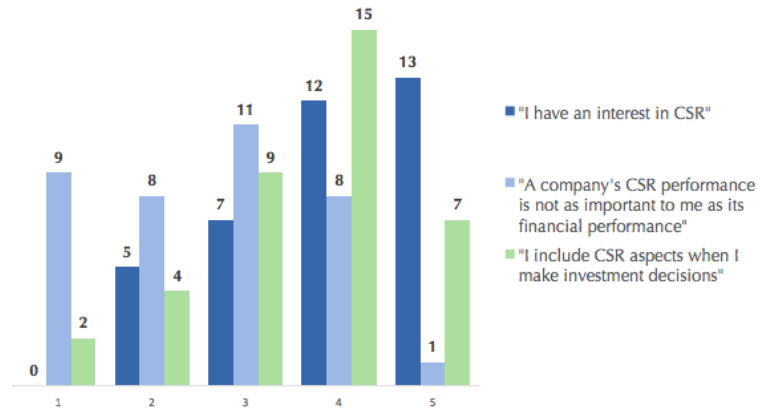


Figure 16: Respondents' level of agreement for different statements.

The figure illustrates how well respondents who trade yearly or less frequent in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

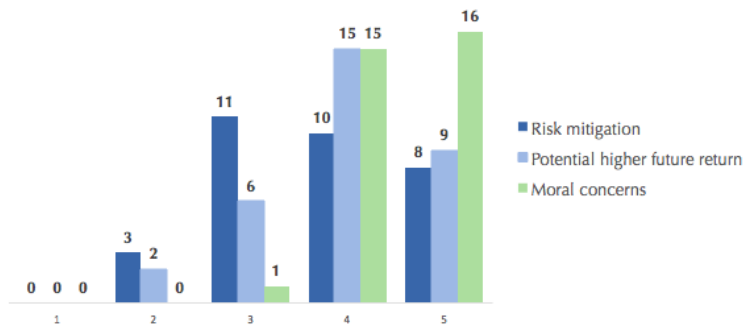


Figure 17: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents who trade yearly or less frequent in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

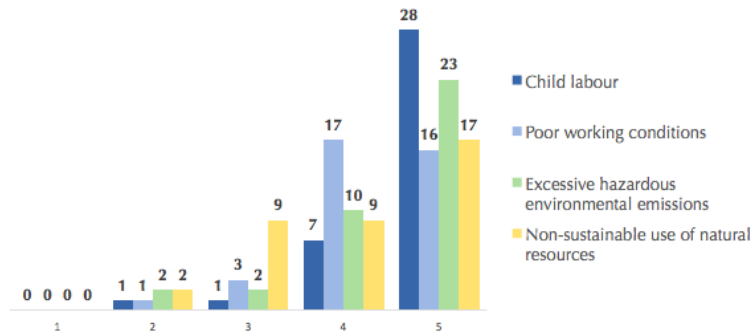


Figure 18: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents who trade yearly or less frequent in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

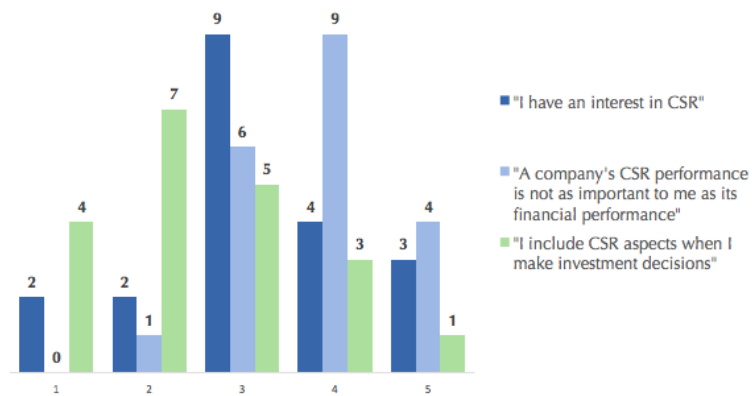


Figure 19: Respondents' level of agreement for different statements.

The figure illustrates how well respondents who trade every sixth month in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

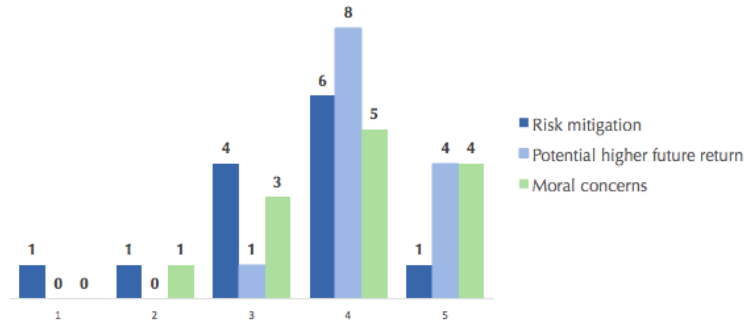


Figure 20: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents who trade every sixth month in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

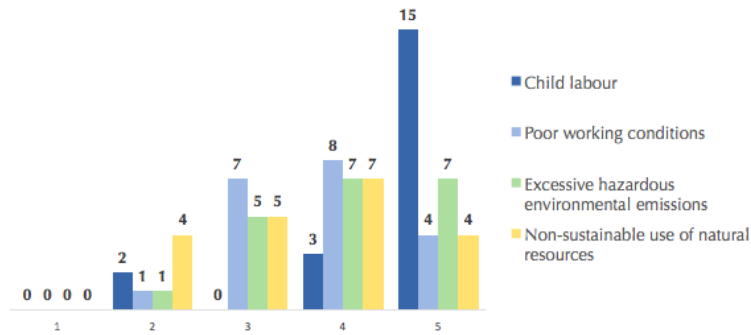


Figure 21: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents who trade every sixth month in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

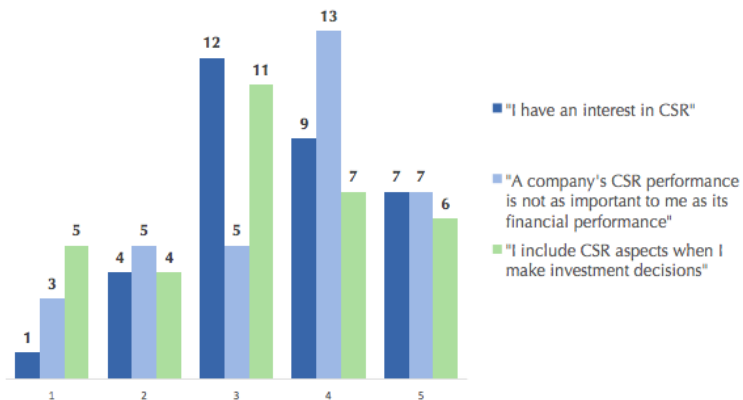


Figure 22: Respondents' level of agreement for different statements.

The figure illustrates how well respondents who trade monthly in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

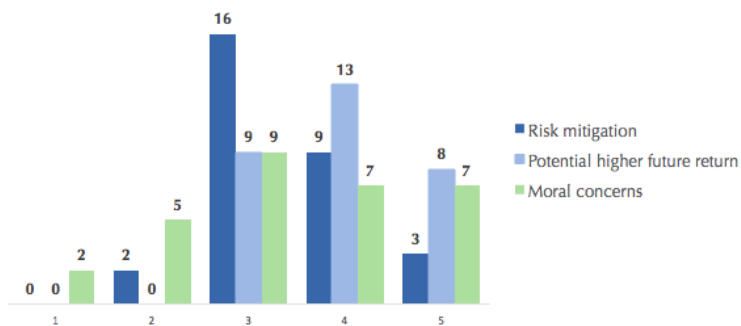


Figure 23: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents who trade monthly in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

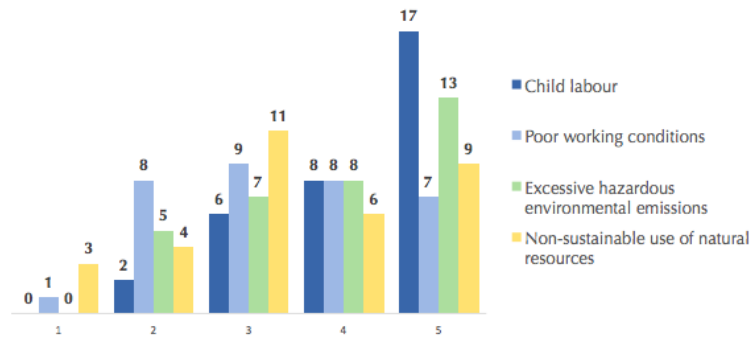


Figure 24: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents who trade monthly in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

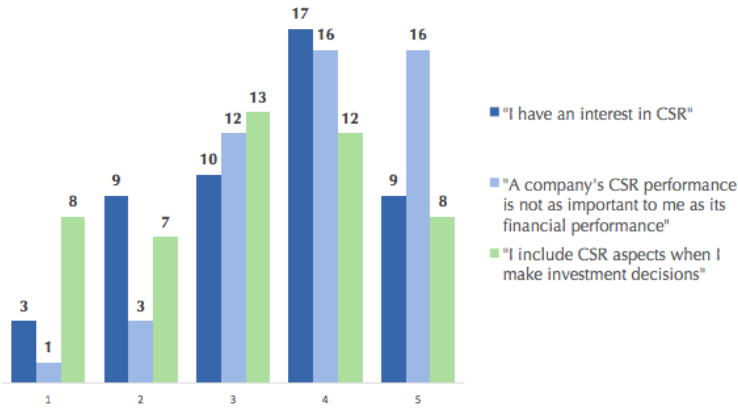


Figure 25: Respondents' level of agreement for different statements.

The figure illustrates how well respondents who trade weekly in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

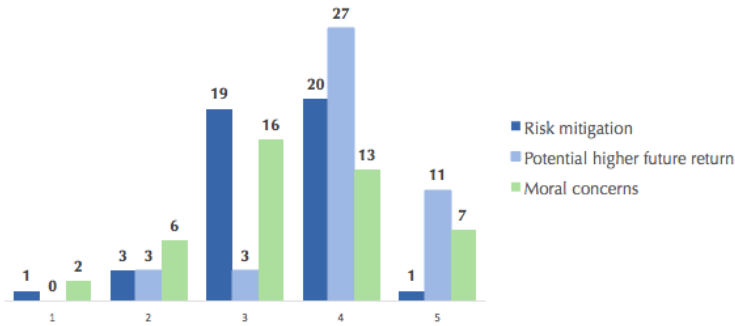


Figure 26: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents who trade weekly in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

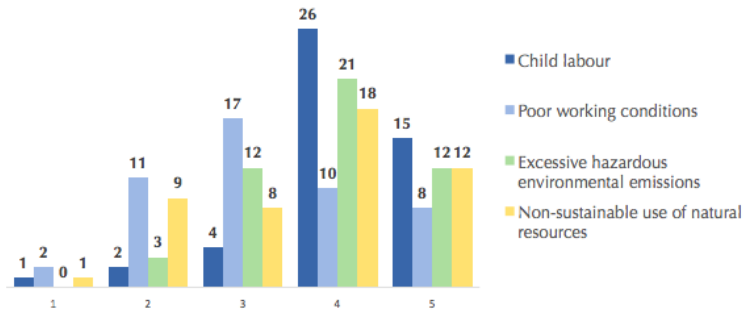


Figure 27: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents who trade weekly in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

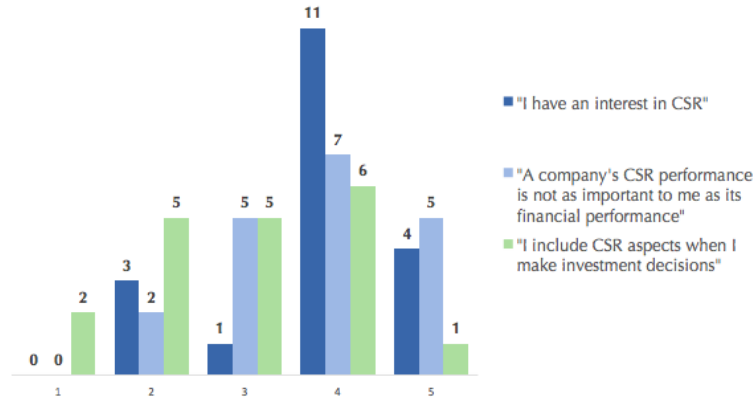


Figure 28: Respondents' level of agreement for different statements.

The figure illustrates how well respondents who trade daily in our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

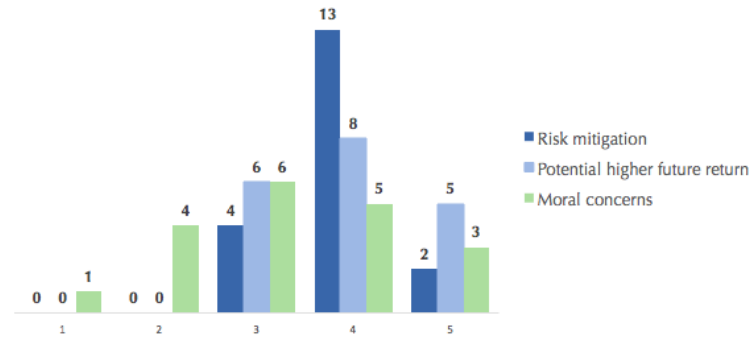


Figure 29: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents who trade daily in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

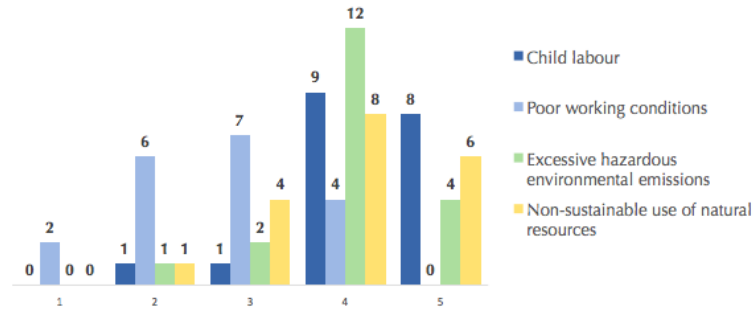


Figure 30: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents who trade daily in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

Age

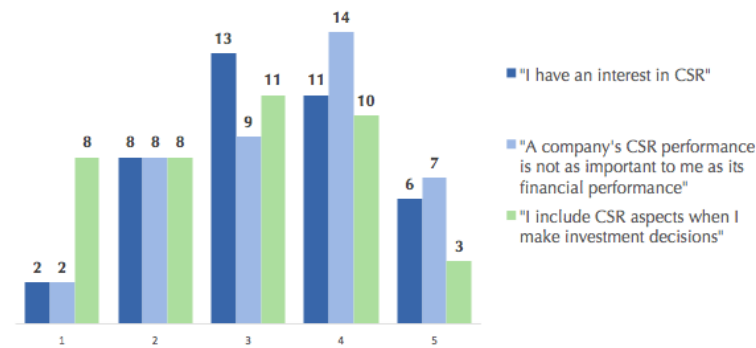


Figure 31: Respondents' level of agreement for different statements.

The figure illustrates how well respondents in age span 18-24 years our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

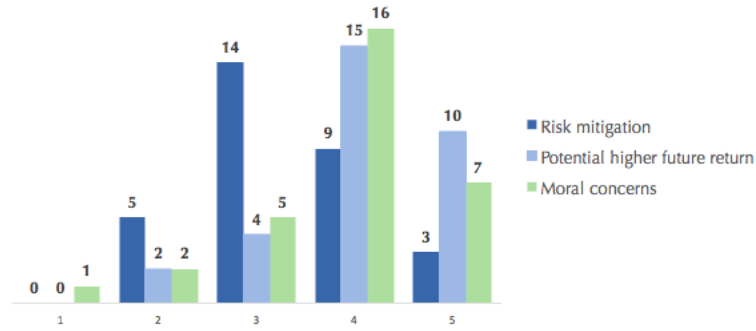


Figure 32: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents in age span 18-24 years in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

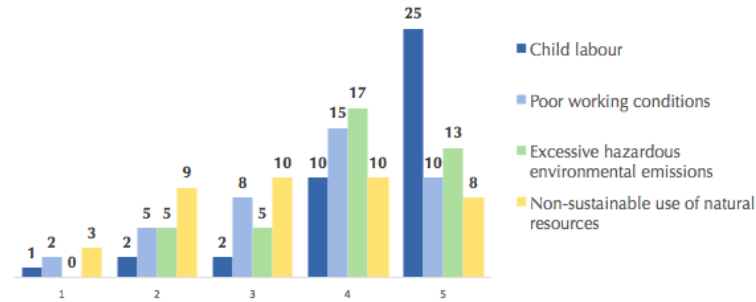


Figure 33: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents in age span 18-24 years in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

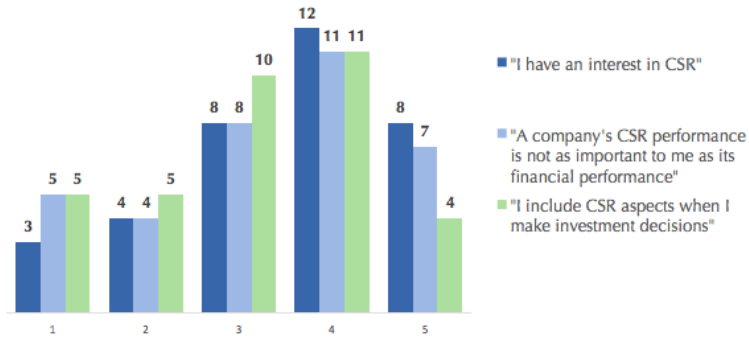


Figure 34: Respondents' level of agreement for different statements.

The figure illustrates how well respondents in age span 25-34 our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

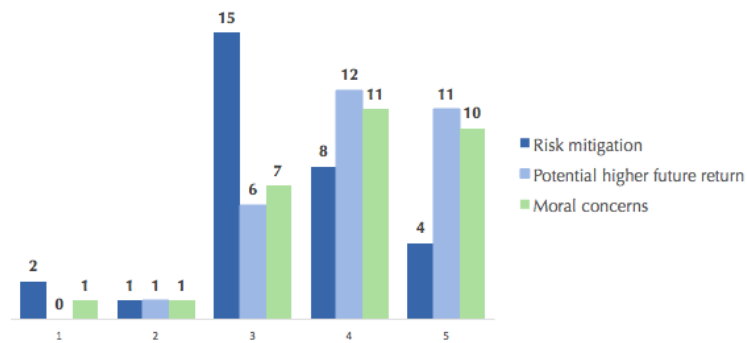


Figure 35: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents in age span 25-34 years in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

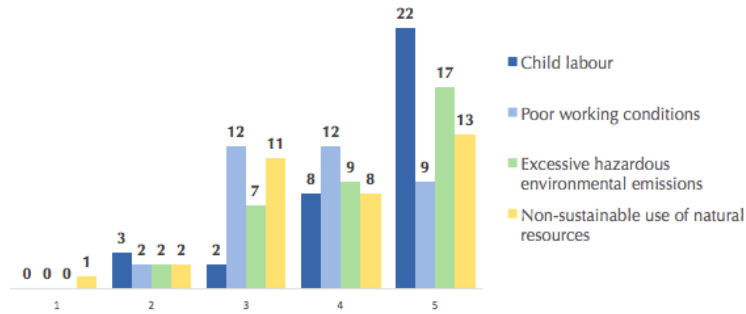


Figure 36: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents in age span 25-34 years in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

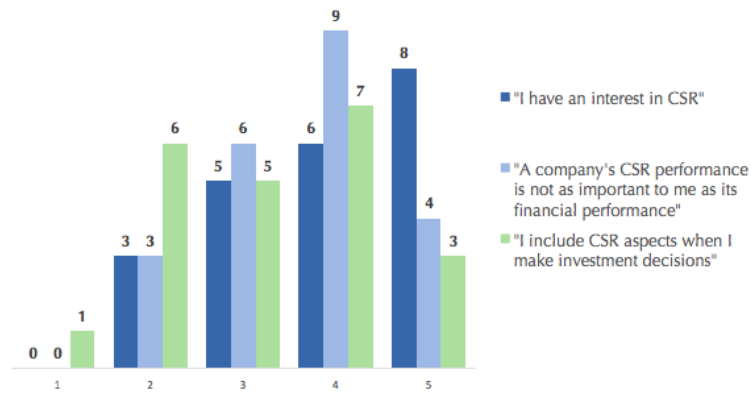


Figure 37: Respondents' level of agreement for different statements.

The figure illustrates how well respondents in age span 35-44 our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

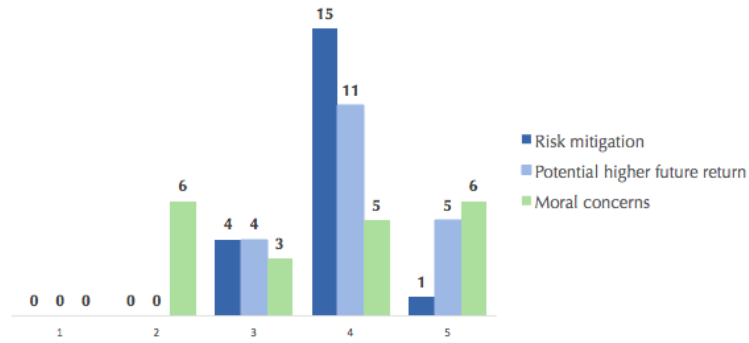


Figure 38: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents in age span 35-44 years in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

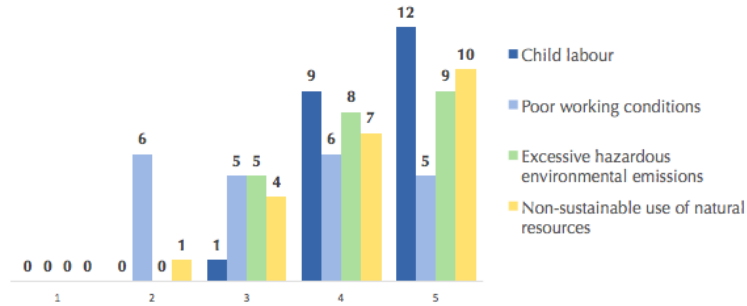


Figure 39: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents in age span 35-44 years in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

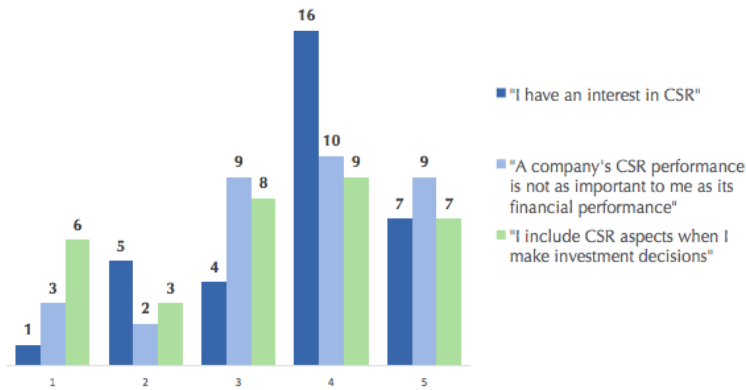


Figure 40: Respondents' level of agreement for different statements.

The figure illustrates how well respondents in age span 45-54 our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

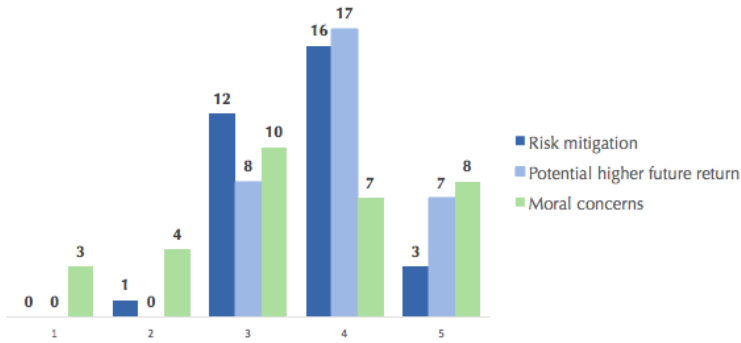


Figure 41: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents in age span 45-54 years in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

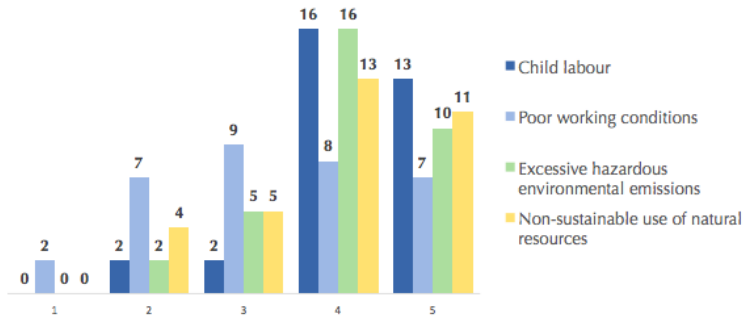


Figure 42: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents in age span 45-54 years in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

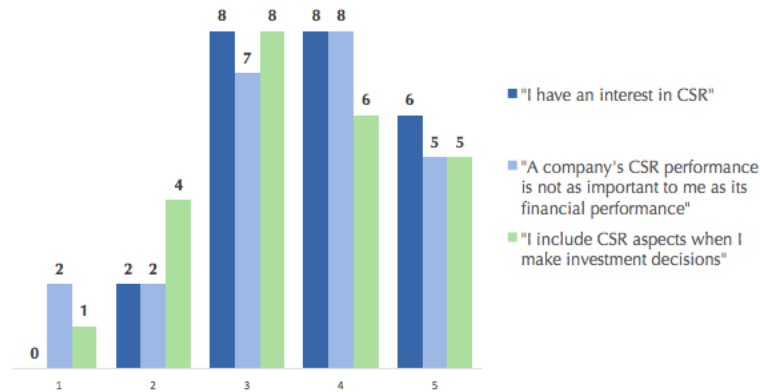


Figure 43: Respondents' level of agreement for different statements.

The figure illustrates how well respondents in age span 55-64 our survey agree with the three statements shown to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".

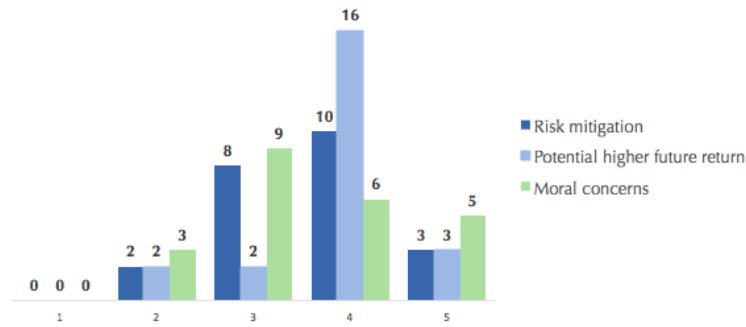


Figure 44: Respondents' opinion about the importance of different aspects.

The figure illustrates the result when the respondents in age span 55-64 years in our survey were asked about the importance of three aspects when including CSR in their investment decision. The aspects can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "not important" and 5 represents "important".

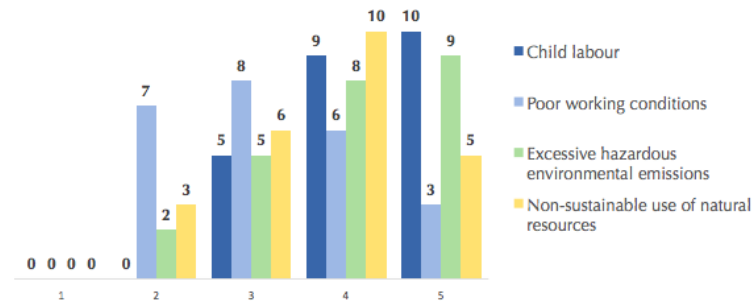


Figure 45: Respondents' view on refraining from investing in a company involved in different activities.

The figure illustrates the result when the respondents in age span 55-64 years in our survey were asked if they would refrain from investing in a company involved in four different activities. The activities can be found to the right in the figure. The respondents had the opportunity to choose a number between 1 to 5, where 1 represents "disagree" and 5 represents "agree".