MASTER THESIS

A New Strategy to Increase CSR Performance.

Does the M&A Strategy of SMEs lead to a change in the CSR performance of the acquiring MNEs?

MSc in Accounting & Control

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Preface

To complete the Master's in Accountancy & Control at the ESE faculty at Erasmus University, I have to write a thesis with the topic that seems most interesting to me. Before I continue to discuss my findings, I would like to thank a number of people who assisted me during the writing of my thesis. I want to thank my thesis supervisor, Ted Welten, for his guidance and patience. I also want to thank my co-reader. I would also like to thank my girlfriend, D'tasha, for her support and my oldest and dearest friend, Yash, for his support. Finally, I would also like to thank PwC and my internship supervisor, Tanja, for offering a thesis internship and advice during the entire thesis period.

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Abstract / Executive Summary

One of the objectives of my thesis is the identification of a relation between the corporate social responsibility of firms and whether acquisition premium is affected through a Merger and Acquisition deal. I focus mainly on acquirers being Multinational Enterprises and targets being Small Medium size Enterprises. In the thesis I also research and analyse whether firms find corporate social responsibility important when acquiring another firm, with the possibility to increase their corporate social responsibility score in the long term. With all of the above combined, I ultimately research whether a new form of M&A strategy is possible to increase the corporate social responsibility score of a firm, specifically the acquirer. Therefore, I prepare the following main research question that I will answer in order to clarify the issue much as possible:

A New Strategy to Increase CSR Performance. Does the M&A Strategy of SMEs lead to a change in the CSR performance of the acquiring MNEs?

Key Words: Corporate Social Responsibility, Merger and Acquisition, SMEs, MNEs, Acquisition Premium, Acquirers, Targets, Strategy.

Contents

1. Introduction

Nowadays, it is becoming more important and apparent for companies to think about investing in Corporate Social Responsibility (further referred to as CSR) and implementing CSR into their decision making and corporate processes. This applies not only to large companies such as MNEs (Multinational Enterprises) but also to startups and SMEs (Small and Medium sized Enterprises). Amongst other researchers, Flammer (2011) found that many companies are considering investing (more) in CSR and the CSR related aspects such as the implementation of sustainable primary and secondary processes within their business operations. This means that CSR plays a role that can no longer be ignored by different stakeholders of not only large firms, but also for smaller firms. The aspects of CSR influences firm's business processes, such as the decision to implement "greener" ways of working, and by firms taking into account CSR related issues in their decision making process. The CSR related approach of firms is essential for its shareholders and staff. Other various stakeholders are also essential such as clients, consumers, non-governmental organizations and diverse activist groups. Beyer and Rostirolla (2018) found in a recent study that startups often apply the concept of CSR approaches that large corporations are taking into their own company processes. This indicates the importance for firms to initialize CSR at an early stage, because it can increase the business value in the long and/or short term, depending on the value amount of the CSR investment.

1.1 Issue

It often happens that (relatively young) SMEs and startups are taken over by other companies; this process is called Mergers and Acquisitions, hereinafter referred to as M&A. In the remainder of this thesis, I will refer to acquiring MNEs as 'the acquirers' and targeted SMEs as 'the targets'. It is generally known that CSR engagements are becoming more important for companies. For example large companies such as PwC conduct internal investigations on various aspects of CSR, such as the commissioning of a survey regarding PRI (The Principles for Responsible Investment) on behalf of the UN Secretary-General at the NYSE in April 2006. The

purpose of the survey is to assess the purchaser attitude towards assessing CSR elements, risks and also opportunities that occur in the processes of M&As. This shows indicatively that CSR is seen as a real issue to resolve or to improve .

The general problem encountered by the companies is the choice of whether to invest (in various ways) in CSR and more importantly in which way to do so. This discussion is frequently held between researchers, but also between practitioners such as senior management and board members of MNEs to decide whether or not to invest in CSR related activities. There are also several reasons why specific companies are taken over, such as better targeting of millennials by taking over companies that are already specifically targeted for precisely this purpose. For example, the Clorox company decided to make an acquisition of the environmentally friendly Burt's Bees company for $ 913 million in the year 2007. The main objective was to make Clorox more environmentally friendly as a parent company and to target millennials that focus primarily on more natural and sustainable products. A similar example is the acquisition of the sustainable company Trunk Club by Nordstrom. From these examples it is clear that both companies realize that the additional value they seek can be to take over or rather acquire companies that do take part in CSR and their targeted activity. For these companies, the quickest way to participate in improving CSR is to take over those companies that are already focused on CSR related activities (Bourque, 2018).

There is however still a lack of clarity amongst researches about whether the fact that a target that invests time and money in CSR is awarded for this during an M&A deal and whether other factors such as the degree of acquisition premium, also known as goodwill that was ultimately paid by the acquirer, are affected by how much the target invests in CSR. Research papers regarding CSR focus mainly on the links between aspects of CSR and the performance of companies in various countries and how CSR affects various corporate structures and cultures that prevail within companies. In this thesis, I mainly focus on the effect, or rather the predicted increase of the level of CSR of the acquirer, as result of an M&A deal.

1.2 Goal

The main aim of the thesis is to come up with a theoretically substantiated advice for MNEs regarding their M&A strategies and their CSR score. The goal is to give more insight on the effect of CSR difference between acquirer and target on the different aspects of the M&A deal. I want to determine whether the acquirers strategy for increasing the CSR score by closing an M&A deal with a target is a good strategy. One of the other objectives is to be able to definitively determine that targets will be taken over earlier by an acquirer if there is a difference in level of CSR between the firms. This would mean that targets can focus on sustainable business, which will ultimately result in a higher degree of CSR. The chances that these targets are acquired are therefore also higher. Also, acquirers that are in a growing and/or expansion phase can mainly use this research as a theoretical tool in deciding which companies can possibly be acquired or not. Overall, the result in this thesis could suggest that managers, executives and boards of firms can extend their view on utilizing CSR related engagements with M&A as a tool, to (further) improve the firm's CSR related aspects. This topic would help firms gain a better understanding during possible obstacles in the process of making a M&A deal and aid not only to preserve the created value by both the acquirer and target but also to ensure that the same value creation maintains to grow into the combined or new entity.

1.3 Problem Definition / Central Research Question

The main goal of my thesis is to identify a relation between the rate of CSR within firms of both target and acquirer and whether the level of CSR of the acquirer will increase or decrease after a successful M&A and if this M&A strategy is viable for firms to practise. Therefore, I prepare the following research question for my thesis: "*Does the M&A Strategy of SMEs lead to a change in the CSR performance of the acquiring MNEs?*"

Although research has already been done into the relation between CSR and wealth creation after an M&A, I focus on a specific aspect, namely if the CSR rate of the acquirer increases significantly or not. This thesis wants to make an attempt to research a trend between large

companies acquiring smaller firms to (further) increase their CSR rate. If a relation is found, it is plausible that these acquirers will want to take over more targets that are mainly more involved with CSR compared to other firms that do not engage (as much) in CSR related activities. This ultimately can be argued that more appreciation is given to companies that do invest in CSR as this was previously (briefly) explained. For instance, an acquirer who is aware of CSR related factors is more likely to display a different perspective than an acquirer who has a neutral view of negotiating with a target which has focus on CSR, when taking in factors such as the process of negotiation and other relevant acquisition aspects. This can also occur vice versa and would indicate CSR related synergies between acquirer and target.

1.3.1 Sub-Questions

In order to answer the main question of this thesis, I have prepared several sub-questions to systematically tackle the issue. The intuition behind the first hypothesis (H1: *The higher the CSR difference, the higher the likelihood that the M&A deal succeeds.*) is that the acquirer can have substantial value to their CSR score and how they are seen by relevant stakeholders as a firm who is socially responsible if the target has a poor CSR score. Thus, it is viable that the M&A will not occur, because the target will convert to the acquirer or an entire new entity and consequently of the M&A, the acquirer's CSR score will likely diminish, due to the consolidation. Accordingly, the aforementioned can indicate that future CSR goals can be difficult to realize by the combined entity. But also vice versa, when the target has a lower CSR rate than the acquirer, which also can also lead to synergies. It is important to research if the chances are higher if firms that focus on CSR aspects at the same level are more likely to proceed with an M&A deal. If the CSR difference is larger between the acquirer and target, this could mean that the acquirer or the new entity likely will have to invest more to improve the CSR score. The second hypothesis reads as follows: '*There is a positive correlation between the target CSR score and the acquisitions premium issued by the acquirer.*'. Naturally, I expected that the acquirer would notice more purpose and profit in the target and accordingly offer a higher acquisition premium assuming that the target has an exceeding CSR score and therefore

possibly is a good strategic match. Provided that the target includes a low CSR rate, it is expected that the acquirer will offer less acquisition premium because the acquirer would have to devote more effort in the acquired firm, to achieve a high CSR score and/or to adjust to their strategy. Researcher Li (2016), shows that firms with an comparable or complementary culture, therefore see that CSR-related factors are more often associated with high premiums at M&As. Researcher Li (2016) expects that firms have a tendency to offer a higher acquisition premium to targets who have comparable and / or complementary organizational culture, such as focusing on CSR. Finally, the final hypothesis reads as follows, "*The acquirer CSR score increases 2 years after the completion of the M&A deal with a high CSR score difference.*". This hypothesis ultimately will provide insight on two subjects, namely the change in CSR rate of the acquirer after a certain time (in this case 2 years) after a successful M&A deal. The second insight is the change in acquirer CSR rate after years have passed since the successful acquisition of a target with a high/low difference between the CSR rate of its acquirer.

1.4 Thesis Findings

Once again the main focus of the thesis is to come up with a theoretically substantiated advice for MNEs regarding their M&A strategies and their CSR score. The goal is to give more insight on the effect of CSR difference between acquirer and target on the different aspects of the M&A deal. The first main finding is that typically, M&A deals between firms that have a distant CSR score, are less likely to occur. The second main finding is that acquirers do not express value towards high target CSR scores regarding acquisitions premium within M&A deals. The third and final main finding is that for completed M&A deals between firms with a different CSR score, the CSR score of the acquirer is positively affected after two years of the completion of the deal. This means that even though M&A deals between firms with a very different CSR score are less likely to occur and also that acquirers do not pay more acquisition premium for a high target CSR score. Acquirers can still use the strategy of completing M&A deals for firms with a very different CSR score in order to improve their own CSR score. Thus, to return to the main

question of this thesis, "Does the M&A Strategy of SMEs lead to a change in the CSR performance of the acquiring MNEs?", I can conclude that this is the case.

1.5 Thesis Structure

The thesis is divided into 8 different sections, each having multiple subsections. The first section gives a general introduction to the topic and describes the main objective of the thesis. The second section describes the theoretical background of the relating topics of this thesis. These topics are mainly focused on the relations between M&As, acquirers, targets and the effects of CSR. Subsequently, the development of the hypotheses are extensively described in section 3. In section 4, the research design is graphically represented and further explanation is given and also the measurement of key variables. Section 5 describes the different relevant data sources and the steps taken to achieve the final dataset. The empirical analysis and results are also presented and described in section 6. These results are statistically interpreted to answer the various hypotheses. Finally, a general conclusion is given in section 7 and lastly in section 8 the limitations and future recommendations.

2. Theoretical Background

Conducting research amids CSR of both the MNEs and SMEs, it is fundamental to analyse the key related literature in regard to the CSR rate with the M&A and acquisition premium related topics and the content analysis of relevant academic research papers.

2.1 Corporate Social Responsibility (CSR)

I find it important that the relation between the CSR and firms must be clearly established. Not only to firms in general, but also specifically to firms operating in different industries. Key research is performed regarding how firms practice CSR with their respective CSR score by Gjølberg (2009). This research ultimately indicates the main differences across firms that operate in different industries and also different countries. The research of Gjølberg (2009) provides crucial literature about the development of my own research design. For the following subsections I will perform a literature review on CSR in combination with the related key aspects of the thesis.

2.2 CSR & Wealth Creation

Next, I use the theory of Gneezy et al. (2010) for the fundamental insight of the association between acquisition premium and CSR. A field experiment is performed by Gneezy et al. (2010) regarding being socially responsible and whether people will pay more or less for a certain product. The results of the experiment proves that people who are socially responsible can increase the overall profits. This is in contrast with the observation in other literature that indicates that investing in CSR is not profitable. The experiment involved selling a type of product on two different days, namely souvenir photos. On the first day the customers see that there was a fixed price and on the second day the customers were allowed to decide for themselves what they wanted to pay for the product. In both cases, the customer was told that

half of the proceeds went to charity. This experiment eventually demonstrated that more profit was made because customers gave much more in the second case. This experiment not only indicated that more was spent after the introduction of switching from normal traditional corporate social responsibility to shared social responsibility. The same principle can also apply to M&As, where acquirers would pay more acquisition premium (considering that this amount is linked to other factors that cannot always be measured such as ideas and innovation) when taking over a target. This ultimately leads to an altercation that firms can function just like humans (by examining the field experiment) and can offer more (or less) acquisition premium all the while the takeover of a target that supposedly has a higher (or lower) CSR rate.

2.3 Overall CSR Importance

According to previous research, I can conclude that CSR is becoming increasingly important for the end consumer, client and customer, but also other stakeholders for firms. This is also heavily dependent on the industry each firm operates in (Young & Marais, 2012). The dispute remains of how important CSR related practises are for firms and how these companies perceive CSR related issues and/or activities. The goal of my thesis aims to provide firm insights and behaviour and managing CSR and how to improve the CSR aspects of firms. The accounting research community's focus on CSR rate is increasing every year (Cho et al., 2015). The thesis results contribute to the awareness regarding the influences that CSR have on firms, especially during an M&A deal. Comprehensively, it also has a practical contribution for practitioners such as managers, accountants and executives and economic actors about how consequential CSR rate is for estimating the value of firms.

2.4 Multinational Enterprises and CSR

The general deeper relation between firms and CSR and its theories is researched by Garriga & Melé (2004). They studied the relationship between how firms deal with CSR end up in four different groups, namely (1) instrument theories, which is the economic aspect of doing CSR with the focus on wealth creation and other economic benefits; (2) political theories, which

emphasizes the relationship between society within the political area by accepting social duties; (3) integrative theories, suggesting that firms should integrate general social demands as firm's success depends most of the time on the general public and (4) ethical theories. Modern large firms (MNEs) find themselves having to deal with all of the groups. Garriga & Melé (2004) suggested that it was crucial to develop a new theory between the relationship of business and society, which will ultimately integrate all four of these groups. During acquisitions of other firms, it can be assumed that MNEs look at the internal alignment between all these factors but also how well the targets have been operated and performed in each of these individuals groups, which in turn could reflect the acquisition premium and the CSR rate.

Garrriga and Melé (2004) states that there is a lack of exactly how MNEs deal with implementing CSR when it comes to the actual practical implication of this subject as the theoretical consensus among researchers. Researchers have attempted to address this problem by designing a theoretical integration between business ethics and international business. Through the created framework and the associated integration of business ethics and international business concepts (including different areas of CSR) to ultimately get an explanation of the strategic adoption of implementation of local CSR strategies (Hah & Freeman, 2013). This is relevant for MNEs to know when taking over an SME within another country where the local CSR differs from the global CSR. As a result, MNEs may be more inclined to solve local CSR related problems by targeting SMEs that have already integrated such a problem and invested in their business operations and strategy. Also if the ethical and/or public pressure in a certain market or country is higher then it is very likely that SMEs (that tackles or has addressed the CSR problem) will be preferred taken over by an MNE that is also operative within the same market or country.

2.5 Small and Medium sized Enterprises and CSR

Furthermore, the focus is not only on large corporations and their CSR activities, but also on SMEs and small and medium sized subsidiaries of MNEs. It is important to know exactly what

the drivers are for these SMEs to implement CSR related activities and how they are subsequently influenced. The key drivers that motivate these small businesses were examined by Park & Ghauri in the year 2015 and it became clear that consumers, managers and associated staff of SMEs, competitors and also the NGOs are the main drivers behind the motivation of SMEs that introduce CSR and their further future implications and changes. Thanks to this research, MNEs gained considerable practical contribution and insight for further strategic expansion in terms of improving its CSR score and how they ultimately can be achieved.

2.6 Merger and Acquisitions and CSR

The focus of this thesis is primarily that MNEs can adopt a strategy to get their CSR score or related CSR problem resolved by acquiring or taking over other companies with the right strategic fit or vice versa if there are any synergies that can be created. Researchers such as Mirvis P. (2008) found indicators in 2008 that acquisitions of CSR driven businesses are frequently taking place with one of the main goals being seizing opportunities in emerging and growing markets. Well-known local brands have become world brands because these SMEs that started specific brands have been taken over by MNEs. The MNEs realize that there is a growing interest in eco-friendly products and natural products. The interest has been aroused by the baby boomers and this way of conscious, ethical consumption and life has been and continues to be passed onto future generations. A few examples of well-known acquisitions are: The Body Shop by L'Oreal, Tom's of Maine by Colgate-Palmolive and Ben & Jerry by Unilever. These acquired companies (targets) have all incorporated a high degree of CSR related activities and strategies into their business operations and goals and were therefore mainly taken over by the large MNEs who had realized this in order to move quickly with this growing and increasingly self-aware market. Not all consumers/customers know the real CSR score per company before they make a choice where to purchase their products and goods, but what these consumers pay attention to is the so-called “social credentials” that companies have built. Consumers are prepared to switch from brands thanks to CSR related issues. A 2007 survey conducted by Cone, Inc. shows that 87

percent of consumers would switch if there were CSR issues with the brand that they are currently buying (Mirvis, 2008).

This thesis also focuses on the differences between acquirers who have a high CSR degree and acquirers who have a low CSR degree. To be more specific, I focus on when the acquirer CSR score (high and low) and the associated CSR score is improved in not only the short term but also the long term. To my knowledge this has not yet been researched, but a comparison has been made between acquirers with a low CSR as a high CSR and if CSR does create value for the shareholders of the acquirers (Deng et al, 2013). They also look at higher announcement returns (short term) and also the post merger long term operating performance (long term). The results of the research indicate that the market does not fully include the value of the benefits of CSR in the long term stock returns. Another important and relevant finding (for this thesis) is that acquirers with a higher CSR take less time to merge and fail less often compared to acquirers with a low CSR (Deng et al, 2013). I apply the same reasoning and method to this thesis.

2.7 Closing Issues and CSR studies

Finally, there is notable research carried out on CSR to discover the reason why different and conflicting results are found between different researchers and their studies. It is concluded that apart from different research design and implementation, the difference in results is mainly due to managerial implications of the various CSR activities (McWilliams et al, 1999). Based on this research, managerial factors and variables, e.g. information asymmetry for both acquirers and targets are included in this thesis by doing a robustness test and double checking if conflicting results are achieved and if this will actually have an impact on the results of the different hypotheses that I develop. I present the developed hypotheses in the next chapter and will further be extensively substantiated and explained.

3. Theory and Hypothesis Development

Since the main topics of this thesis (CSR and M&A) can be perceived as relatively broad topics due to the many circumstantial factors involved with each subject. Taking this into account, I attempt to answer the main question as accurately as possible by subdividing it into different hypotheses that collectively will form a much detailed but above all, a complete view and conclusion. In the theoretical background chapter, I find four influences (strategic fit, organizational fit, cultural fit and long term view) when analyzing the relation between CSR and M&A, with the result which the acquirer CSR score potentially will increase (Mirvis, 2008). At the moment researchers can not assume with certainty that the CSR score will increase and if this is an effective and usual strategy for acquirers.

3.1 Key Definitions

I further specify the key definitions for my thesis. I adopt the definition for the term corporate social responsibility which is derived from the European Commission (2011) who defines the term as "the responsibility of enterprises for their impacts on society". Furthermore, I adopt the definition for corporate responsibility performance or CSP from the model created by Wood. This model defined corporate responsibility performance as: 'a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships' (Wartick & Cochran,1985). For the reader's ease, I refer to CSP as ''CSR score''. Next, it is important that distinctness is given as to which firms meet the given conditions to belong to SME's and MNE's. The broad concept of SME is classified differently throughout the world. Various factors are included in more complex categorization by defining institutions such as industry, revenue, number of employees and a distinction between non-exporting firms and exporting firms. Since only U.S. companies are applicable in this thesis, I adopt the most

common and straightforward definition of the SBA's Office of Advocacy (SBA Advocacy), specifically that a company only belongs to the SME category if it has fewer than 750 employees (United States International Trade Commission, 2010). For the purpose of this thesis, I assume that a company belongs to the SME category if it has fewer than 750 employees, due to data limitations and constraints. This still leaves the focus on the relatively smaller companies but also the distinction between large companies and smaller companies. Furthermore, it is relevant for this thesis to provide a definition of the MNE. An MNE is generally viewed as a large company with more than 500 employees and operating, controls and managing firms in at least two countries or more (Caves, 1996). For the purpose of this thesis, I categorize companies with more than 750 employees in the MNE category.

3.2 Hypothesis 1

The intuition I have for the first hypothesis, which involves that an acquirer can attach importance, which translates into value to the CSR score of the target plus the relevant CSR activities which the target performed. Keeping in mind that the assumption is that the acquirer (as previously mentioned) has an organizational fit, strategic fit, etc. with the SME. As previously stated in section 2, the theory suggests that: the larger the gap of the overall fit between firms, the larger the difference between their respective CSR score. The first hypothesis is formulated below:

$H1_0$: *The higher the CSR difference, the lower the likelihood that the M&A deal succeeds.*

$H1_1$: *The higher the CSR difference, the higher the likelihood that the M&A deal succeeds.*

I elaborate the first hypothesis further with an example, in the case that the target CSR score is higher than the acquirer, the possibility is more likely that an M&A deal will be successful, because the target will ultimately become part of the acquirer or become a whole new entity and consequently of the acquisition, the acquirer's CSR score should increase. This can indicate that CSR goals that are set in the future, can be easier to attain for the combined entity. Ultimately it can potentially lead to future investment to yet achieve the planned CSR goals. In the theoretical

background I already state that researchers establish that companies are becoming increasingly aware and that CSR is indeed important for MNEs and SMEs. With this logic, I predict that in most cases acquirers with a low CSR score would (overall) take over a target with a higher CSR score compared to targets with a low(er) CSR score, regardless of the specific (strategic) reasoning for taking over a company. This has previously been done by researchers, but not specifically with the case of only MNEs as acquirers and SMEs as the targets, within the dataset. The results and conclusion arising from the first hypothesis reinforces answering the main question as targets with a high difference of CSR score between the acquirer, which ultimately can be adopted as a M&A strategy to improve a firm's CSR score.

3.3 Hypothesis 2

When the strategy of firms includes to increase the CSR score of the firm or is CSR focused, this can therefore lead to the increase of the firm value when evaluated when a M&A is initiated by a potential acquirer. Acquirers that already have a certain CSR score can measure potential targets value differently, which can potentially lead to a higher offer of acquisition premium for acquiring the target. I therefore prepare the (second) hypothesis regarding the relation between the CSR score and the acquisition premium between the acquirer and target:

$H2_0$: *There is no correlation between the target CSR score and the acquisitions premium issued by the acquirer.*

$H2_1$: *There is a positive correlation between the target CSR score and the acquisitions premium issued by the acquirer.*

The focus of the second hypothesis is devised by the same reasoning and basic principles of the experiment by Gneezy et al. (2010). It's experiment aims to explore the relations between CSR and the amount that people would pay for this by introducing two different strategies, namely paying via a fixed amount and a variable amount. By analyzing the results and the conclusion of the experiment, firms should respond the same when they make a purchase or in this case an acquisition. The CSR factors in the Gneezy experiment plays a major role that people and

businesses are willing to pay more for CSR related services or products. I predict that an acquirer recognizes more value and benefit for a specific target, which increases the acquisition premium assuming that the target has an exceeding CSR score. In case that the target has an inadequate CSR score, conventionally the acquirer will offer less for the acquisition premium (the fair value will be lower). Because the acquirer or new combined entity will have to invest more in the future, to attain or to maintain a high CSR score for the combined firm. Li (2016) describes the positive relation between a similar CSR score of two companies and the acquisition's premium paid for the acquired company in the case of an M&A deal. This article also relates the CSR score to the culture within the specific company and states that the CSR score gives an indication of the company's culture.

3.4 Hypothesis 3

Finally, I research if acquirers do benefit from an gain in CSR score after a certain period of time after the M&A. Researchers determined that wealth creation is created for acquirers by acquiring targets with high CSR scores (Deng et. Al, 2013; Li , 2016). Although wealth creation is created with M&A deals, it is still unknown if the acquirer's CSR score improves after a certain time after the M&A deal completion. In order to answer the main question of my thesis as comprehensively as possible, it is necessary to know if the acquirer CSR score improves sufficiently over time by acquiring another firm. Therefore I formulate a third and final hypothesis below:

$H3_0$: *The acquirer CSR score decreases 2 years after the completion of the M&A deal with a high CSR score difference.*

$H3_1$: *The acquirer CSR score increases 2 years after the completion of the M&A deal with a high CSR score difference.*

To research the third hypothesis, I establish the following two crucial points, namely: (1) taking the CSR scores of the acquirers of all completed deals and (2) determining the duration after the M&A deal completion and finally comparing the acquirer's ''after M&A deal CSR score'' with

the ‘’before M&A deal CSR score’’. Ideally, I prefer to compare an acquirer's CSR score with the CSR score after at least 5 years, because this is often used in M&A deal studies to research financial performance. Unfortunately, given that CSR data is limited and is not updated annually the 5 year duration is not possible. As a result, I shorten my duration length so that I still have enough data to perform a multivariate analysis. The duration length I take is 2 years after completing the M&A deal to calculate the difference in CSR score. I expect a positive relation between the difference of the acquirer CSR score two years after the deal completion and the difference of CSR difference between the acquirer and target. The larger the CSR difference means that there is a larger gap or problem in the area of CSR between the acquirer and the target. Therefore, I expect that the CSR gap between the acquirer and target will narrow or that a CSR problem will be solved and also that a higher degree of focus will be placed on CSR during a 2 year period after the deal completion.

3.5 Overall Graphical View

Since a number of hypotheses are formulated, each with a different specific focus with relatively many different key variables to the relation between these variables and CSR scores. These should lead to answer the main question if M&As can be used as a strategy by firms to solve the CSR gaps and problems and ultimately improve the CSR score of the acquirer. I construct a clear overview for this. For the overview I refer to Appendix 1, which shows the general hypothesis development in a graphic representation. This clearly states the problem (main research question), focus, goal and the resulting hypotheses to answer the main question.

3.6 Additional Analysis

When developing the three main hypotheses above, I include a more practical approach to sustain my main research question. If my expectations are (mostly) correct, it would mean that a theoretical strategy can be used to improve the CSR score via M&A deals. If acquirers want to adopt the strategy to improve their CSR score via M&A deals, most firms would practically only engage this if it also were profitable. There are many actors and factors that play a role when an

M&A deal is initiated with the sole reason to only improve the firm's CSR score. One of the important actors are the shareholders (also non-listed firms), because they mainly want to gain a profit at the end of the financial year. Factors that also influence this is if there are no financial crisis moments. Then the focus is mainly on remaining financially healthy rather than improving CSR. Executives and managers would only adapt a strategy if they were to achieve synergistic benefits. This synergy benefit would then combine to improve the CSR score and make the M&A deal profitable in the medium-long term. Grubb and Lamb (2011) research conclude that a fifth of M&A deals fail to provide their shareholders with the expected financial returns. On the other hand, CSR related problems are becoming increasingly important for firms to get resolved. Solving a CSR problem could have a positive effect on shareholder value. With this reasoning, I have devised an additional hypothesis below and included it in the thesis as an additional analysis for the sake of completeness and practicality:

$H4_0$: *There is no relation between the CSR difference (between acquirer and target) and the 2 year stock return of the acquirer after the completion of M&A deals.*

$H4_1$: *There is a positive relation between the CSR difference (between acquirer and target) and the 2 year stock return of the acquirer after the completion of M&A deals.*

The hypothesis looks at it from the point of view of the acquirers shareholders and potential investors. The buy and hold of abnormal stock returns is most commonly used to calculate shareholder returns. I research through the shareholders returns if this increases around the time of the deal announcement date of the acquirer and targets up to 2 years after the M&A deal completion. I expect a positive relationship between the 2 year acquirers stock return and the CSR difference.

4. Research Design

4.1 Introduction

In this chapter I elaborate the sample selection that is taken for this thesis. Furthermore, I include the most essential variables such as CSR, absolute difference CSR, acquisition premium and the other control variables for further elaboration. Finally, I explain the empirical models (regression models).

4.2 Sample Selection

First, I retrieve all (available) data from the ‘’MSCI KLD400’’ database. The availability of data is only for US-firms and some Canadian firms between 1991 and 2013. Secondly, financial data is extracted from CRSP and COMPUSTAT, which is needed for the other independent and control variables such as acquisition premium for all firms corresponding to the available CSR related data per firm. The number of employees for all firms was also taken from CRSP and subsequently distinguished between SMEs and MNE. Finally, I extract M&A data from the Thomson Financial database and thereafter all data is merged into a final data set. The cleaning of missing data points and the categorization of all M&A deals between MNEs and SMEs is ultimately carried out. Table 1 provides an overview of the observations on SIC industry distribution.

Table 1. Sample distribution by Industry and Year.

Sample distribution by Industry and Year								
SIC Industry / SIC Code	**Agriculture, Forestry & Fisheries**	**Mineral Industries & Construction**	**Manufacturing**	**Transportation, Communications & Utilities**	**Wholesale Trade & Retail Trade**	**Financial Industry**	**Service Industries**	
Year	**[01-09]**	**[10-17]**	**[20-39]**	**[40-49]**	**[50-59]**	**[60-69]**	**[70-89]**	**Total**
1995	0	2	4	2	0	0	0	**8**
1996	0	1	2	2	0	3	0	**8**
1997	0	2	5	0	1	2	0	**10**
1998	0	3	6	4	0	0	0	**13**
1999	1	3	5	2	0	3	0	**14**
2000	0	0	2	0	0	2	0	**4**
2001	0	1	4	0	1	1	0	**7**
2002	0	1	1	0	0	5	3	**10**
2003	0	3	20	3	4	28	12	**70**
2004	0	6	44	4	4	17	9	**84**
2005	0	2	32	5	5	20	15	**79**
2006	0	3	25	3	8	23	14	**76**
2007	0	2	21	8	2	8	11	**52**
2008	0	2	22	2	0	4	6	**36**
2009	0	0	20	3	1	8	12	**44**
2010	0	2	10	4	1	8	4	**29**
2011	0	0	20	6	3	7	2	**38**
2012	0	1	18	4	4	15	8	**50**
2013	1	6	79	21	9	31	24	**171**
Total	**2**	**40**	**340**	**73**	**43**	**185**	**120**	**803**

My total sample consists of 803 observations (N = 803). This is relatively small compared to other M&A related studies. This is mainly due to the filtering of targets based on the number of employees, so that I only have the SMEs as targets in my final sample. In section 5.2 (Restrictions) I explain in more detail which steps I take to retrieve the relevant CSR, M&A and financial data from the databases for both the acquirers and targets.

4.3 Measurement of Key Variables

Next, the important key variables and control variables are discussed in the following sections. The following sections also indicate how the different key variables are taken and determined, as well as any adjustments made per key and control variable. Lastly the regression models are stated and briefly explained.

4.3.1 Measuring Corporate Social Responsibility

In this section I explain how I convert the different indicators of raw CSR scores into a general CSR measurement score for a firm. The raw CSR data has seven different strength and concern indicators namely Community, Diversity, Environment, Employment, Product Safety and Quality, Corporate Governance and Human Rights. The Corporate Governance and Human Rights dimension is out of the scope for this thesis. I calculate the corporate social rating by subtracting the total aggregate strengths from the total aggregate concerns. This method is used in multiple research papers and studies (Waddock & Graves, 1997; Walker, 2000). The firms which have a negative CSR score are mentioned as firms with a low CSR score, whereas firms with a positive CSR score are mentioned as firms who possess a high CSR score.

For each dimension, the MSCI database assesses the collected qualitative data and then computes a score. I adopt the method of Oikonomou et al. (2012) and Deng et al. (2012) to use the Aggregate Strengths (AGS) and Aggregate Concerns (AGC) of the individual dimensions. The AGS [1] and AGC [2] is calculated using the following formulas:

[1] $AGS = \frac{1}{5} \times (PSQStr + ENVStr + EMPStr + DIVStr + COMStr)$

I adapt the same AGS formula to calculate the AGC:

[2] $AGC = \frac{1}{5} \times (PSQCon + ENVCon + EMPCon + DIVCon + COMCon)$

The abbreviations in the formula stand for the following: PSQStr stands for Product Safety and Quality strengths, ENVStr stands for Environment strengths, EMPStr stands for Employment strengths, DIVStr stands for Diversity strengths and lastly COMStr stands for Community strengths. The same applies to the same abbreviations for the concerns (Con).

I made the assumption that each of the five dimensions is equally important in determining the CSR score for each firm and therefore weigh equally. This assumption is also included in the papers of Oikonomou et al (2012) and Deng et al. (2013). This balanced weighting applies to

both aggregated strengths and concerns. This is theoretically the best approach, because there is little conceptual work in quantifying the dimensions consisting of CSR. This approach is also objective with respect to firms operating in different industries, where some dimensions play a larger and more important role than firms operating in completely different industries. The method I adopt is a *one-size-fits-all* approach.

Finally, the CSR score is calculated using the AGS and AGC. By subtracting the aggregated strengths from the aggregated concerns, the remaining overall CSR score remains for each firm. The following formula [3] is drawn up to calculate the CSR score per firm:

[3] $CSR_{Firm(s)} = AGS - AGC$

Now that the CSR score per firm is calculated for all firms in the dataset, the difference between the CSR score between the firms where a successful M&A deal is reached can ultimately be calculated. This is explained in the next section.

4.3.1.1 Measuring Absolute Difference Corporate Social Responsibility

Now that the individual CSR scores of all acquirers and targets have been determined, the difference in CSR score must ultimately be calculated for all firms within M&A deals of my dataset. The determination of the difference between acquirers and targets is important because the thesis focuses on CSR between firms and various aspects of M&As.

A study by Kim et al. (2014) and many other studies confirmed that firms that share the same ethical values have more confidence in each other. This subsequently results in a higher degree of cooperation, communication and also a greater willingness to support each other. Loans are also malleable among themselves. Based on these findings, I assume that the smaller the CSR score difference between firms, the more values the acquirer and target have in common. I adopt the method from Kim et al. (2014) to calculate the CSR difference between the acquirer and target:

[4] $CSR\ Diff_{(Acquirer,\ Target)} = |Acquirer\ CSR - Target\ CSR|$

The result of the difference between the acquirer and target CSR score is absolute and must therefore be a number greater than or equal to 0 (CSR Diff = /> 0)

4.3.2 Measuring Acquisition Premium

Another important variable is the acquisition premium. The acquisition premium is the amount above the market value for which an acquirer paid during an M&A for a target. There are numerous papers on how to calculate the acquisition premium. I used the method of Li (2016), because this method is also frequently used in other M&A related studies. The method implies that there are three different data points needed for each firm in my dataset, namely the premium of the offer of the closing stock price of the targets four weeks prior to the original announcement date. The premium is then converted and expressed in percentages. See the APremium (%) [5] expressed in formula form:

[5] $APremium\ (\%) = ((\frac{((Price\ Paid\ Per\ Share) - (Price\ Per\ Share\ 4\ weeks\ prior\ to\ Announcement))}{(Price\ Per\ Share\ 4\ weeks\ prior\ to\ Announcement)}) \times 100\%)$

As a last step the APremium (%) is winsorised between 0,5%-99,5% so that large unlikely premiums are removed from the dataset. This prevents inaccurate regression results.

4.4 Control Variables

All variables are sensitive to other external and internal factors. To get accurate results, I control for the main factors that can have the biggest influence on not only CSR, but also M&A related variables.

I control the degree of leverage for a firm that can affect the likelihood of an acquisition going through or not. Firms or acquirers with higher leverage can ensure that they generally cannot execute M&As, even if these high leverage firms want to improve their CSR score or solve a CSR related problem via an M&A. Because of this I check for the leverage of the acquirers

(ALEVERAGE). I also control for the ratio between target size over acquirer size (RELSIZE). The reason for this is because larger targets size makes it more difficult to structure and integrate business with the acquirer. It also costs relatively more to integrate than a smaller target size, this would generally also apply to close a CSR gap of the acquirer (if the acquirer intended to solve a CSR problem to take over the larger target). Rodrigues and Stevensons (2013), shows that the size of a target has a negative impact if an M&A deal continues. Because of this I added the deal relative size (DRELSIZE) as a control variable in the regressions. Research shows that targets with a high valuation are related to a lower competitive deal offer. I control this with the market to book ratio for the acquirer (AMB) and target (TMB). With these two control variables you can know if a firm is overvalued or undervalued and this method is often used in M&A research. Myers and Majluf (1984) shows that it is important not only to know at an M&A deal if firms are overvalued or undervalued, but also the way in which payment is made and the variables involved that also require checking, such as information asymmetries. The two primary ways to pay for targets are through a share issue, cash or a combination of the two. Research shows that information asymmetries between targets and acquirer play a major role in the method of payment chosen. If the acquirer believes that their own stock price is overvalued, they will tend to pay via share issue to finance the transaction. This allows the acquirer to make a profit through a stock issue. To control for this I use information asymmetry for the acquirer (AIA) and target (TIA). I calculate this by taking the standard deviation of the residuals from the Fama-French Three factor model of daily returns within 250 trading days from the date of the acquisition's announcement day. The percentage of stock payments (% STOCK) for the successful deals are also included as a control variable in the regressions. To further prevent the valuation problem, the Runup is also included as a control variable in the regressions. The Runup refers to the buy and hold abnormal return (BHAR) of the acquirer stock for a specific time before the acquisition announcement day. Furthermore, the Runup is determined by the acquirer buy and hold cumulative stock returns during a period before the acquisition announcement date (60 days before).

In general, researchers indicate that if a firm has high financial performance, it is likely that the CSR performance is also high. This means that the financial performance indicators must be used as control variables in the regressions. I use the most used financial and accounting measures as control variables, namely the return of asset ratio for the acquirer (AROA) and target (TROA). The other important variables I include generally characterize a firm (both acquirers and targets) are Tobin Q (ATOBINQ; TTOBINQ), market capitalization (AMKTCAP; TMKTCAP), and return on equity (AROE; TROE).

The CSR score between firms in different industries can also differ with each other, e.g. the score is determined differently at an accounting firm than at a production company. I used intra-industry variables to control the industry effects. The intra-industry variable is a dummy variable and is 1 as the primary 3 digit acquirer's SIC code corresponds with the 3 digit code of the target's SIC code. The level of collateral for the acquirer and the target can influence the M&A deal between firms by allowing firms with a higher level collateral to generate more cash, which can have a positive influence on the CSR and can also lead directly and/or indirectly to a higher acquisition premium. The collateral of the acquirer (ACOLLATERAL) and target (TCOLLATERAL) is determined by taking the ratio of the firm's property, plant and equipment (PPE) to the book value of total assets during the year-end before the deal announcement.

Furthermore, researcher Li (2016) shows that the greater the difference in CSR between acquirer and target, the smaller the chance that an M&A deal will be successful. When the acquirer CSR is much lower than the target CSR, it is possible that a target hesitant is to be taken over because the acquirer would not focus on CSR as much after the takeover. The acquirer could still acquire the target via a hostile takeover. I control this by including hostile deals (HOSTILE) in the regressions as dummy variables (1 if it is a hostile deal and 0 if it is not a hostile deal). Researchers, Frick and Torres (2002) found that high tech firms are frequently acquired that represent approximately 1% of the acquirer’s market value. Within the high tech industry, firms are frequently taken over to fill a gap in their range of services and/or products and this does not

need to be necessary to fill or resolve the CSR gaps or problems. I control this with a high tech dummy variable for both acquirer (AHIGHTECH) and target (THIGHTECH). The dummy variable is 1 if the firm is a high tech firm. Competition in an M&A also occurs if the target has multiple offerings, which can lead to a higher acquisition premium because the providers want to outbid each other. I control this by adding a competition dummy variable (COMP) in the regressions (1 if there is more than 1 bidder and 0 if there is only 1 bidder). Finally, I control for year fixed effects (YEARFE).

Refer to Appendix 5 for a general overview of all variables used in the thesis and how they are calculated, from which database it originates and to which hypothesis these variables apply. Below is a list of all control variables used in the regression models:

- Ratio of target's over acquirer size (RELSIZE)
- Deal relative size (Drelsize)
- Market-to-book ratio (AMB; TMB)
- Return of asset ratio (AROA; TROA)
- Market capitalization (AMKTCAP; TMKTCAP)
- Runup (ARUNUP)
- Information asymmetry (AIA; TIA)
- Inta-industry dummy variable (INTRAIND)
- Hostile dummy variable (HOSTILE)
- Collateral (ACOLLATERAL; TCOLLATERAL)
- Return on equity ratio (AROE; TROE)
- Tobin Q ratio (ATOBINQ; TTOBINQ)
- High tech firms dummy variable (AHIGHTECH; THIGHTECH)
- Stock payment percentage (%STOCK)
- Competition dummy variable (COMP)
- Year Fixed Effects (YEARFE)

4.5 Empirical Models

Model 1

To better understand and test the hypotheses formulated and the relationship between CSR and M&A between the MNEs and SMEs, I prepare the following regressions per hypothesis below. Starting with the first hypothesis where I test the likeliness that an M&A deal will come to completion with the distance of the CSR difference between acquirer and target. This is observed by performing a multivariate analysis. The following regression is presented for *hypothesis 1*:

$$(M\&A\ Completion) = \beta 0+\beta 1 CSRDIFF+\beta 2 ACSR+\beta 3 ALEVERAGE+\beta 4 RELSIZE+\beta 5 DRELSIZE+\beta 6 AMB+\beta 7 AROA+\beta 8 AMKTCAP+\beta 9 ARUNUP+\beta 10 AIA+\beta 11 TIA+\beta 12 INTRAIND+\beta 13 HOSTILE+\varepsilon it$$

I use a logit (model) regression instead of a linear model to measure the impact of the difference of the CSR score between the target and the acquirer. Several researchers recommend to use the logit regression to address any problems assuming that the dependent variable is binary (Li , 2016; Palepu, 1986). Since the regression concerns the completion phase of a deal, I mainly control the appropriate characteristics for the acquirer and the M&A deal. I control more for the acquirers than the target because the acquirer has more power than the target in this phase and that the completion of the deal therefore mainly lies with the acquirer. Note that the target information asymmetry (TIA) is added to the regression because the deal may possibly not go through thanks to the target if it does not find the payment sufficient for the acquisition deal, or if the method of payment is not desired. Consider that the acquirer does not find the CSR related matters important enough. This allows the deal to be withdrawn from the target due to information asymmetry.

Model 2

I also set up the regression to test the second hypothesis. In the second hypothesis, the impact of the target with a high CSR score on the acquisition premium is determined. I include a second model for the second hypothesis, namely where I alter the main independent variable with CSR difference between acquirer and target (CSRDIFF). The multivariate models can be found below:

(1) A*Premium* (%) =
$\beta 0+\beta 1\text{Target}CSR+\beta 2ACOLLATERAL+\beta 3AROE+\beta 4ATOBINQ+\beta 5AIA+\beta 6TCOLLATERAL+\beta 7TRO+\beta 8TTOBINQ+\beta 9TMKTCAP+\beta 10TIA+\beta 11THIGHTEC+\beta 12DRELSIZE+\beta 13\%STOCK+\beta 14INTRAIND+\beta 15HOSTILE+\beta 16COMP+\varepsilon it$

(2) A*Premium* (%) =
$\beta 0+\beta 1\text{CSRDIFF}+\beta 2ACOLLATERAL+\beta 3AROE+\beta 4ATOBINQ+\beta 5AIA+\beta 6TCOLLATERAL+\beta 7TRO+\beta 8TTOBINQ+\beta 9TMKTCAP+\beta 10TIA+\beta 11THIGHTEC+\beta 12DRELSIZE+\beta 13\%STOCK+\beta 14INTRAIND+\beta 15HOSTILE+\beta 16COMP+\varepsilon it$

I use the full sample where the deal is successful. I also check for the relevant acquirer, target and M&A characteristics. Here I expect a positive relationship between the acquisition premium in percentage and the CSR score of the target. This shows that the acquirer is more willing to pay if the target's CSR score is higher. The second model can also further demonstrate that CSR related synergies, which can be created through an M&A if I find a positive relation between the CSR difference and the acquisition premium.

Model 3

To analyze the third hypothesis, also the last hypothesis, a multivariate analysis is also performed. The regression model is based and constructed as the regression previous (hypothesis 2). First, the dependent variable must be determined, in this case the increase in the CSR score of the acquirer 2 years after the M&A deal. I determined this based on a difference between (1)

CSR score in the year when the M&A deal took place and (2) the acquirer's CSR score after a period of approximately 2 years. In the formula [6] below I mathematically show how this is computed:

[6] $\Delta ACSR = (ACSRA_{After\ 2\ years} - ACSRA_{Year\ of\ the\ M\&A})$

To determine if the acquirer gets an increase in the CSR score after a certain time after the M&A deal of a target with a high CSR score, therefore it is necessary to check for the acquirer, target and M&A deal characteristics (equivalent to that of hypothesis 2). The regression model has been drawn up for the last hypothesis:

(3) Δ ACSR %= $\beta 0+\beta 1 CSRDIFF+\beta 2 ACOLLATERAL+\beta 3 AROE+\beta 4 ATOBINQ+\beta 5 AIA+\beta 6 TCOLLATERAL+\beta 7 TROE+\beta 8 TTOBINQ+\beta 9 TMKTCAP+\beta 10 TIA+\beta 11 THIGHTEC+\beta 12 DRELSIZE+\beta 13\% STOCK+\beta 14 INTRAIND+\beta 15 HOSTILE+\beta 16 COMP+\varepsilon it$

For the dependent variable, the positive CSR differences were taken between the acquirers and targets CSR scores in the year of the M&A deal. I expect a positive connection between the increase in the acquirer's CSR score after about 2 years and the CSR difference in the year of the M&A deal. Having a positive relationship between these two variables would mean that it would prove that the acquirer's CSR increases after some time if the acquirer adopts a target with a higher CSR score using an M&A deal, but also vice versa, which means positive synergies between firms. This can conclude that through M&A deals, larger firms with CSR-related gaps and problems are solved by taking over certain targets.

Additional Model 4

To make the thesis even more complete in order to better answer the main question, it is important that the larger firms not only want to increase their CSR score by taking over a smaller firm with a higher CSR score, it must also be profitable for the acquirer. Realistically, a firm would do a successful M&A deal if it is profitable in the long run by eventually closing a

CSR-related problem or gap. Based on this logic, I have drawn up an additional regression based on the third regression model because of the relationship between the acquirer return of the two emerging years after the M&A deal and the CSR score of the target. Below is the additional regression:

(4) Acquirer two year return=
$\beta 0+\beta 1 CSRDIFF+\beta 2 ACSR+\beta 3 ACOLLATERAL+\beta 4 AROA+\beta 5 AMB+\beta 6 AMKTCAP+\beta 7 AIA+\beta 8 AHIGHTEC+\beta 9 TCSR+\beta 10 TCOLLATERAL+\beta 11 TROA+\beta 12 TMB+\beta 13 TMKTCAP+\beta 14 TIA+\beta 15 THIGHTEC+\beta 16 DRELSIZE+\beta 17 INTRAIND+\beta 18 HOSTILE+\beta 19\% STOCK+\varepsilon it$

I mainly control the characteristics of the acquirers, targets and M&A deals. These control variables are also mainly used by other researchers (Deng et al., 2013; Li , 2016). I adopt the same control variables. In the regression, the acquirers CSR difference is placed and I expect that there is a positive relationship between this variable and the acquirers return.

I conceptualize the variables that I use. The reader can mainly use this to clarify and simplify the design of the research. The conceptualization is done by creating libby boxes for each of the hypotheses, which are provided in Appendix 2, 3 and 4.

5. Data Sources

In order to get the answers to the hypotheses formulated and ultimately the main question, it is necessary to extract data from different databases to perform the analyses. The main data I need are; corporate social responsibility, financial and mergers and acquisition data for the regression models. I provide more information about the databases below.

5.1 Databases

To determine the CSR rating, data is collected from the MSCI KLD 400 Social Index database (Morgan Stanley Capital International), formerly known as KLD database (Kinder, Lydenberg and Domini). This database is a third-party data agency that publishes CSR ratings for US companies. The ratings given on various aspects per company are the most influential and the most extensive database that can accurately measure CSR (Hong et al., 2016; Waddock & Graves, 1997). The ratings are determined by taking a combination of financial statements, articles, press releases and surveys. There are seven main dimensions, namely human rights, community, corporate governance, diversity, environment and product and employee relations. As previously mentioned (in chapter 4.3.1.) corporate governance and human rights is out of scope for this thesis and therefore excluded from the dataset. For each dimension, a string and concern are determined. The data can be used to determine which firms score relatively high and low in the area of CSR.

The most extensive and widely used database by other researchers about mergers and acquisition data is the Thomson Financial SDC database. The Thomson Financial database is extensively maintained for the relevant variables required for the hypothesis such as M&A completion, deal relative size and acquisition premium. Other financial variables required to perform the regressions are collected from Centre for Research in Security Prices (CRSP) and Standard & Poor's Compustat North America database (COMPUSTAT). These databases are also used extensively in other research papers.

Lastly, the statistical analysis is executed with STATA, SPSS and Microsoft Excel.

5.2 Restrictions

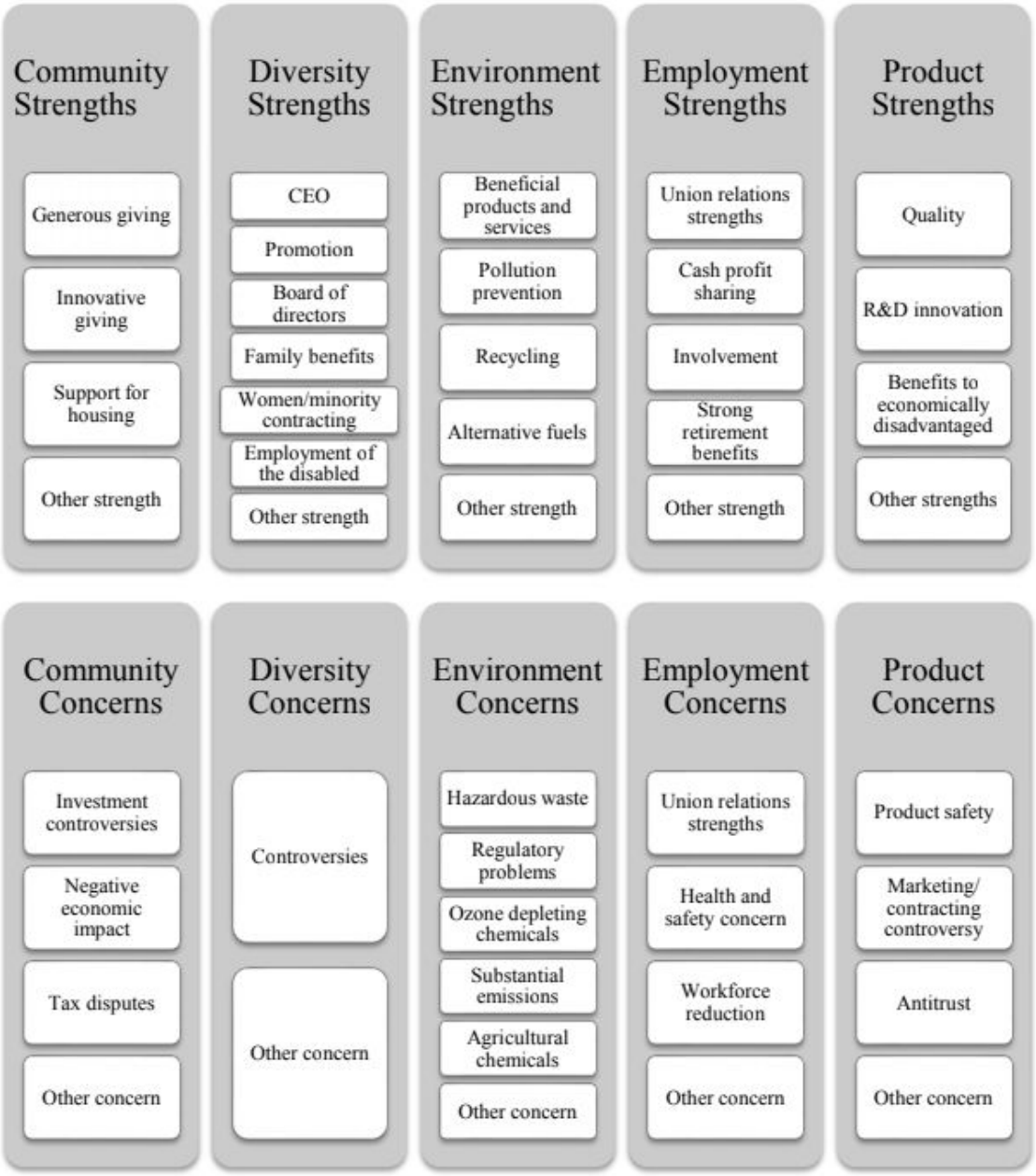
I followed a fixed order when determining the restrictions when dealing with the raw data from the databases. The restrictions are standard in M&A and CSR related literature (Deng et al, 2013; Fuller et al, 2002; Li, 2016). The initial data set is first drawn from the Thomson Financial SDC of all completed and withdrawn deals between 1991 and 2016. Then I take five restriction criteria:

1. All firms within the dataset must be U.S. and Canadian firms. This is because of the MSCI database that only contains data from U.S. firms. and a few Canadian firms.
2. Each M&A deal between firms must have a value greater than 1 million USD.
3. The nature of the deal or deal type does not include repurchases, acquisitions of remaining interest, exchange offers and spin-offs.
4. The acquirers and targets must match in the MSCI KLD 400 social index database.
5. Finally, the acquirers and targets must also correspond to CRSP and COMPUSTAT databases.

With all restrictions included on the total raw dataset, the final data sample amounts to 803 acquisitions (N = 803).

Only 5 of the 7 dimensions have been extracted from the MSCI database. According to Oikonomou et al. (2012) and Hillman & Keim (2001), these 5 dimensions have a direct link between specific and primary stakeholder groups. This means that the data is more accurate by excluding strands and concerns of Corporate Governance and Human Rights and focusing on the most important aspects between CSR and a firm according to Oikonomou and Hillman. For the sake of consistency and comparability of other researchers, I left the two dimensions out of the dataset. Figure 1 shows which indicators have been included.

Figure 1. Indicators of CSR related issues of interest.



The final restriction of the thesis is mainly defining the SME where the key definitions have already been explained in section 3.1. The SMEs in this thesis are categorized based on the

number of employees according to SBA's Office of Advocacy. Due to a relatively short final data sample after applying and filtering the restrictions, I changed the definition of SMEs from 500 employees to 750 employees for more accurate results. This is possible due to the inconsistency and discrepancy on which researchers, countries and other organizations. It is not clear what a general condition for a firm to comply with an SME. This allows flexibility to increase the data sample of a number of SMEs.

6. Empirical Results and Analysis

6.1 Introduction

In this section I will describe the results per hypothesis. Subsection 6.2 regards the descriptive statistics and is therefore first added to give a complete overview of the summary statistics. Then, in subsection 6.3, the results of the first hypothesis, are described. This hypothesis questions whether it is more likely that if the difference between CSR score of an acquirer and target are lower, the likelihood of an M&A deal will increase. The results of the next hypothesis, hypothesis 2, are described in subsection 6.4. This second hypothesis is based on the possible existence of a positive correlation between the CSR score of both the acquirer and target, with the amount of acquisitions premium. The results of the last hypothesis, hypothesis 3, are described in subsection 6.5. This hypothesis is used to study the effect of the difference in CSR score, and the improvement of the acquirer CSR score. The last subsection is used to describe the additional results that arise from the analysis.

6.2 Descriptive Statistics

Firstly, I will briefly explain the descriptive statistics. As can be seen in Table 2, the characteristics are subdivided into four sections, the CSR difference measure, acquirer characteristics, target characteristics and deal characteristics. The mean and median values of the different characteristics are first provided for the full sample, as can be observed in the first two result-columns of the table. Then, the sample is subdivided into two subsamples and the values of the mean and median are given for those two subsamples. The first subsample is that of large CSR Distance (subsample A) and the second subsample of small CSR Distance (subsample B), as can be seen in the last four columns of the table. Subsample A is of larger sample size than subsample B. Subsample A therefore has a larger effect on the mean and median values of the full sample. The descriptive statistics are described and presented in Table 2 below:

Table 2. Descriptive Statistics

	Full sample (N=803)		Subsample of Large CSR Distance: A (N=467)		Subsample of Small CSR Distance: B (N=336)	
Variable	**Mean**	**Median**	**Mean**	**Median**	**Mean**	**Median**
CSR Difference measure						
CSR Difference	0.51283	0.40000	0.69293	0.40000	0.26250	0.20000
Acquirer Characterstics						
CSR	0.26202	0.20000	0.56146	0.40000	-0.15417	-0.20000
Collateral	0.07329	0.00841	0.05207	0.00450	0.10366	0.01866
Financial Leverage	0.23440	0.16713	0.21808	0.14681	0.25708	0.19878
ROA	0.05018	0.04642	0.05502	0.04993	0.04347	0.03981
Market cap	8.89117	8.76412	9.27462	9.29159	8.35664	8.16623
Market to book	5.80539	4.45396	2.59805	5.49732	10.32087	3.75712
Runup	-0.15677	-0.11954	-0.14753	-0.11270	-0.16950	-0.12469
Acquirer information asymmetry	0.01553	0.01387	0.01488	0.01326	0.01643	0.01496
Hightech (dummy)	0.52304	1.00000	0.59101	1.00000	0.42857	0.00000
Target Characterstics						
CSR	-0.03263	0.00000	-0.13148	-0.20000	0.10476	0.00000
Collateral	0.33267	0.09840	0.24967	0.09160	0.45191	0.15611
Financial Leverage	0.23896	0.16564	0.21493	0.12520	0.27272	0.21394
ROA	-0.02945	0.01539	-0.03892	0.01302	-0.01619	0.01949
Market cap	6.40017	6.31791	6.38641	6.22035	6.41941	6.44614
Market to book	1.22266	0.40208	-0.32022	0.30038	3.40138	0.58866
Target information asymmetry	0.02382	0.02086	0.02414	0.02161	0.02336	0.02023
Hightech (dummy)	0.51308	1.00000	0.58672	1.00000	0.41071	0.00000
Deal Characterstics						
Deal relative size	0.22792	0.18709	0.18629	0.13261	0.28595	0.26104
Intra-industry (dummy	0.44956	0.00000	0.43041	0.00000	0.47619	0.00000
Hostile (dummy)	0.03238	0.00000	0.02355	0.00000	0.04464	0.00000

Large CSR distance = CSR Difference>0.2
Small CSR distance = CSR Difference<0.2

The mean and median values of the CSR difference of subsample A are respectively 0.6929 and 0.4000. These values are larger than the mean and median values of subsample B being respectively 0.2625 and 0.2000.

In Table 3 and 4 an overview of pairwise correlations among CSR strengths and concerns is given. The correlations are split up in two tables, one for the target and one for the acquirer.

Table 3. Pairwise Correlations among Acquirer CSR Variables

	Acquirer CSR	Acquirer CSR Strenghts	Acquirer CSR Concerns
Acquirer CSR	1	-	-
Acquirer CSR Strenghts	0.8628	1	-
Acquirer CSR Concerns	-0.0556	0.4568	1
Total Observation = 803			

Table 4. Pairwise Correlations among Target CSR Variables

	Target CSR	Target CSR Strenghts	Target CSR Concerns
Target CSR	1.0000	-	-
Target CSR Strenghts	0.7988	1.0000	-
Target CSR Concerns	-0.5393	0.0759	1.0000
Total Observation = 803			

For the next step an overview of the distribution of the CSR score, provided by the two tables below. As for the case of the pairwise correlations, the distribution of the CSR score is also subdivided into two tables. Table 5 shows the distribution of the acquirers CSR score and Table 6 shows the distribution of targets CSR score.

Table 5. The Distribution of Acquirers CSR Scores

CSR Score Acquirers	# of Firms	% of Sample
<0	240	29.89%
0	158	19.68%
1	315	39.23%
>1	90	11.21%
Total Observation = 803	**803**	**100.00%**

Table 6. The Distribution of Targets CSR Scores

CSR Score Targets	# of Firms	% of Sample
<0	373	46.45%
0	227	28.27%
1	192	23.91%
>1	11	1.37%
Total Observation = 803	**803**	**100.00%**

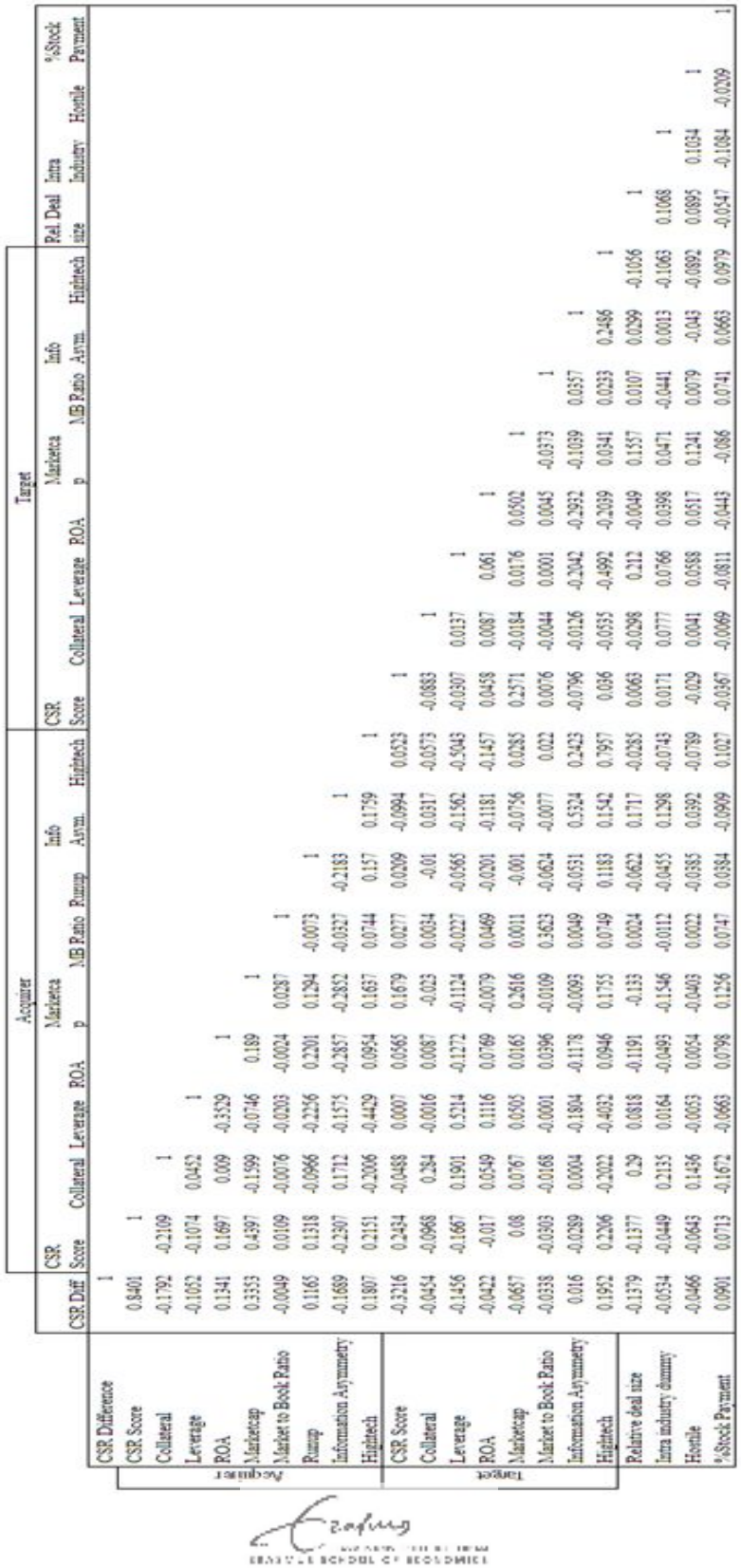
The total amount of firms should be the same in both tables. For almost half of the target sample, 46.45%, the CSR score is smaller than 0. The smallest percentage of the target sample has a CSR score larger than one. The CSR score of the acquirer however is for the biggest part of the sample, 39.23%, equal to 1. The percentage of the sample with a CSR score larger than one is also the smallest for the case of the acquirers.

Table 7 shows the Pearson Correlation between all variables, which is an indicator for the linear correlation between two variables. In most of the researches regarding the same subject as this thesis, the correlation is divided into three ranges: smaller than 30%, between 30% and 50% and larger than 50%. For this thesis these three ranges are therefore also used, with the range larger than 50% being categorized as strongly correlated. This is essential information for the execution of the regressions. Variables that have a high correlation, meaning a correlation higher than 50%, will not be used in the same regression so that multicollinearity issues are avoided. There are five pairs of variables that fall into this category: target leverage & acquirer leverage (52.14%), target information asymmetry and acquirer information asymmetry (53.24%), target leverage & acquirer leverage (50.43%), target hightech & acquirer hightech (79.57%) and acquirer CSR score & CSR difference (84.01%). Thus, to make sure that the results are accurate, I will not use these pairs in the same regression model.

There are nine pairs of weakly correlated variables, meaning variables with a correlation between the range between 30%-50%. The medium highly correlated variables are the acquirer market cap & the CSR difference (33.53%), acquirer ROA & acquirer leverage (35.29%), target CSR

score & CSR difference (32.16%), target market to book ratio & acquirer market to book ratio (36.23%), acquirer market cap & acquirer CSR score (43.97%), acquirer hightech & acquirer leverage (44.29%), target hightech & acquirer leverage (40.32%) and target hightech & target leverage (49.92%). These variable pairs are included (if necessary) in the same regression due to the fact that the correlation can be classified as 'weak'. This approach is also seen in other relative studies regarding the same key variables.

Table 7. Pearson Correlation between all Variables



6.3 The Relation between CSR and M&A Completion

The first regression is done to determine the effect of the absolute CSR difference between acquirer and target on the likelihood of the completion of M&A deals. The results of this regression is used to check whether the first hypothesis is rejected or accepted.

The most important and relevant finding from this regression, as can be seen in Table 8, is that the coefficient of the regression for the absolute CSR difference is negative (b=-0.793, p=-2.48), meaning that there is a negative relation between the absolute CSR difference and the likelihood of the completion of M&A deals. If we relate this back to the first hypothesis, which states that the higher the CSR difference, the higher the likelihood that the M&A deal succeeds, we can see that the findings from the first regression, describe the complete opposite. The negative value for the absolute CSR difference means that an increase in the CSR difference between acquirer and target will decrease the likelihood of completion of M&A deals. It can therefore be concluded that for or the majority of completed M&A deals, the CSR score of acquirer and target are of the same order size. This can be explained by looking at the corporate culture within firms. The M&A deal will be more likely to be completed and succeed when the corporate culture of the acquirer and the target is similar, which is more likely when the companies value CSR equally.

For a more complete understanding, I will also analyse the control variables and their regression coefficients. I do this to gain a better insight of which variables have a significant effect on the likelihood of the completion of M&A deals. Another variable that can affect the likelihood of the M&A completion is the acquirer CSR score (b=0.484, p=1.91). As can be seen in the table, this value is positive and significant, but less significant than the absolute CSR difference.

Table 8. Regression Analysis Hypothesis 1

	M&A Completion **(Logit Regression)**
	(1)
Absolute CSR Difference	-0.793**
	[-2.48]
Acquirer CSR Score	0.484*
	[1.91]
Acquirer Leverage	0.156
	[-0.24]
Ratio Target size over Acquirer size	-0.233*
	[-1.78]
Deal Relative Size	-2.562***
	[-3.32]
Acquirer Market to Book Ratio	-0.00348*
	[-1.93]
Acquirer ROA	0.598
	[-0.35]
Acquirer Market Capitalization	0.00000324
	[0.87]
Acquirer Runup	0.0676
	[0.15]
Target Information Asymmetry	-3.26
	[-0.28]
Intra Industry (dummy)	0.212
	[0.84]
Hostile (dummy)	-2.787***
	[-5.90]
Constant	3.397***
	[6.92]
N	764
Pseudo R-sq	0.16
A Logit regression is performed on 1 separate independent variable (M&A Completion). In column (1) the absolute difference between the acquirer and target CSR is represented as the dependent variable.	
*The T-statistics is presented between brackets (*p<0.10, **p<0.05, ***p<0.01").*	

Even more significant is the deal relative size (b=-2.562, p=-3.32). This variable has a large negative relation with the likelihood of M&A completion meaning that an increase of the deal relative size can lead to a decrease of the likelihood of completion of M&A deals. The deal relative size is the ratio of the price of the M&A deal and the sum of this price and the market capitalization of the acquirer. It is therefore an indicator of the target size relative to the acquirer size. From this negative relation, it can be concluded that the M&A deal is more likely to be completed when the target and the acquirer are more similar in size.

As can be seen in the regression Table 8 for M&A completion, the acquirer market to book ratio also negatively affects the likelihood of the completion of M&A deals (b=-0.00348, p=-1.93). This can partially be explained by looking at the possible payment method for the M&A deal. An acquirer might choose to execute the payment of the deal in company stocks. However, with a high market to book ratio, and therefore undervalued stocks, the acquirer would have to give out more stocks to account for the agreed upon amount for the M&A deal. Because the stocks are undervalued, this would mean that the acquirer would have paid more for the M&A deal. This increases the likelihood for the deal not to be completed.

The effect of the amount of hostility in the M&A deal (b=-3.26, p=-0.28) and the effect of this aspect on the completion of the deal is also included in the regression. Therefore I can concluded that a hostile attitude has a large negative effect on the completion of the M&A deal. The pseudo R^2 value tells us that the regression model accounts for 16% of the variability of the response data around the mean.

6.4 The Relation between CSR and Acquisition Premium

For the second regression, the acquisition premium and the variables that affect this value, are studied. Unlike the first regression, which was a logit regression, this regression is an OLS regression. The regression includes two different independent variables and multiple control variables. This regression is used to determine whether the second hypothesis is rejected or accepted.

First, I will look at the effect of the first variable: the target CSR score. As can be seen in the table, the target CSR score has an insignificant positive effect (b=3.096, p=0.4) on the acquisition premium. The CSR score of the target therefore does not significantly affect the amount of acquisition premium paid. The second variable, the absolute CSR difference, also does not affect the acquisition premium significantly. The difference is that the absolute CSR difference has an insignificant negative value on the acquisition premium (b=--3.358, p=-0.71). The second hypothesis, that states that there is a positive correlation between the target CSR score and the acquisitions premium issued by the acquirer is therefore correct. However, this correlation is too insignificant. I will therefore reject the second hypothesis. Accepting the hypothesis would mean that this effect is significant enough and that the acquirer is more willing to pay more acquisition premium if the target CSR score is higher and this is not specifically the case. The difference between CSR values of the target and acquirer also does not play a role in the amount of acquisition premium that will be paid.

Table 9. Regression Analysis Hypothesis 2

	Acquisition Premium (OLS Regression)	
	(1)	(2)
Target CSR Score	3.096 [0.40]	
Absolute CSR Difference		-3.358 [-0.71]
Acquirer Collateral	-63.87*** [-3.98]	-63.48*** [-3.95]
Acquirer ROE	-29.81 [-0.71]	-28.75 [-0.68]
Acquirer Tobin's Q	4.238** [2.04]	4.378** [2.12]
Acquirer Information Asymmetry	-1205.9*** [-3.35]	-1266.1*** [-3.42]
Target Collateral	4.813*** [2.62]	4.776*** [2.60]
Target ROE	3.099 [0.53]	3.075 [0.52]
Target Tobin's Q	-0.756** [-2.08]	-0.778** [-2.18]
Target Market Capitalization	11.33*** [6.26]	11.67*** [6.52]
Target Hightech firms (dummy)	-9.949* [-1.80]	-9.316* [-1.66]
Deal Relative Size	67.48*** [3.71]	64.61*** [3.44]
Percentage of Stock Payments	-3.715 [-0.57]	-3.689 [-0.56]
Intra Industry (dummy)	-5.588 [-1.14]	-5.648 [-1.15]
Hostile (dummy)	-16.31 [-1.10]	-16.75 [-1.14]
Competition	-4.426 [-0.42]	-4.07 [-0.39]
Constant	5.661 [0.35]	6.064 [0.37]
N	743	743
adj. R-sq	0.197	0.198

An linear regression is performed on 3 separate independent variables, where (1) the target CSR score is used. In column (2) the absolute difference between the acquirer and target CSR is represented as the dependent variable.
*The T-statistics is presented between brackets (*p<0.10, **p<0.05, ***p<0.01").*

As can be observe in the regression Table 9, the control variables that show significant beta's in both regression models and therefore have a positive or negative effect on the acquisition premium are: the acquirer collateral, the acquirer's Tobin's Q, the acquirer information asymmetry, the target collateral, the target Tobin's Q, the target market capitalization, target hightech firms (dummy) and the deal relative size. These significant beta's are expected for all these variables, except one: the target Tobin's Q. The target's Tobin's Q has a significant negative relation with the acquisition premium for both the first regression model (b=-0.756, p=-2.08) as the second regression model (b=-0.778,p=-2.18). The Tobin's Q is, amongst others, a measure for the financial performance of a firm. Intuitively I would expect that a higher financial performance of the target would be reflected in the amount of acquisition premium paid by the acquirer. However, the regression results represent the opposite is this case: a higher the target's Tobin's Q has a negative effect on the acquisition premium. This shows that the financial performance of a firm is not the only important factor on which the amount of acquisition premium is based. Other variables might also play a big role in the determination of this value.

6.5 The Relation between Firm CSR Difference and CSR Acquirer (2 Year) Improvement

The third regression is composed to provide insight about the difference in CSR score of the acquirer 2 years after the M&A deal completion. The independent variable that I use for this regression is again the absolute CSR difference between the acquirer and the target. As can be seen in Table 10, the absolute CSR difference has a high positive effect (b=3.108, p=9.56) on the acquirer CSR difference after 2 years. The third hypothesis states that the acquirer CSR score increases 2 years after the completion of the M&A deal with a high CSR score difference. . This statement is in line with the results from the regression. The hypothesis is therefore correct, thus it can be concluded that the M&A by an acquirer of a target with a CSR score that is, positively affects the CSR value of the acquirer after 2 years of the completion of the M&A deal.

Most control variables do not have a significant effect on the acquirer CSR difference after 2 years. There are three control variables that, however, appear to be significant: the target market cap (b=0.0000457, p=1.99), target hightech firms (dummy) (b=0.963, p=3) and deal relative size (b=-3.254, p=-3.59).

The target market cap has a moderately positive effect on the acquirer CSR difference after 2 years, meaning that M&A deals with larger targets have a larger likelihood to increase the acquirer CSR difference after 2 years. This result is expected because a target with a larger market capitalization will have a larger impact within the new acquirer's structure, not only financially, corporate governance but also in terms of the CSR.

The target hightech firms (dummy) control variable shows a large positive effect on the acquirer CSR difference after 2 years of the completion of the M&A deal. This can be explained by the fact that hightech firms typically do not harm the CSR value, unlike for example a firm operating in the production of goods. Hightech firms generally have a good CSR score due to the fact that it is more in the line of work of hightech firms to operate socially responsible. A great part of the activities are performed digitally, which makes room for more durable solutions, hence increasing the CSR.

Table 10. Regression Analysis Hypothesis 3

	Acquirer CSR Diff (After 2 years) (OLS Regression)
	(1)
Absolute CSR Difference	3.108***
	[9.56]
Acquirer Collateral	-0.78
	[-0.64]
Acquirer ROE	0.138
	[0.09]
Acquirer Tobin's Q	0.166
	[1.58]
Acquirer Information Asymmetry	-43.31
	[-1.63]
Target Collateral	-0.078
	[-1.10]
Target ROE	-0.0164
	[-0.02]
Target Tobin's Q	-0.00233
	[-0.17]
Target Marketcap	0.0000457**
	[1.99]
Target Hightech firms (dummy)	0.963***
	[3.00]
Deal Relative Size	-3.254***
	[-3.59]
Percentage of Stock Payments	0.423
	[1.23]
Intra Industry (dummy)	0.102
	[0.38]
Hostile (dummy)	0.208
	[0.29]
Competition	-0.544
	[-0.94]
Constant	0.585
	[0.99]
N	377
adj. R-sq	0.458

An linear regression is performed on 1 separate independent variable, where (1) the absolute difference between the acquirer and target CSR is used.

*The T-statistics is presented between brackets (*p<0.10, **p<0.05, ***p<0.01").*

The deal relative size has a large negative effect on the acquirer CSR difference after 2 years. As mentioned for the first regression, the deal relative size is an indicator of the target size relative to the acquirer size. From this negative relation, it can be concluded that the likelihood of an increase of the acquirer CSR difference after two years is less when the target and the acquirer are more similar in size.

6.6 Additional Analysis Results

Additionally, I have decided to perform an extra regression in order to have a more complete understanding of the main objective of this thesis. It is common knowledge that M&A take place mainly from a profit point of view. The fact that the third regression proves that hypothesis 3, which states that the acquirer CSR score increases 2 years after the completion of the M&A deal with a high CSR score difference, is correct does not mean that that M&A takes place for the sole reason to obtain a better CSR score. It's not correct to conclude from the third regression that only CSR plays that big of a role in the M&A deals between an acquirer and a target. Therefore this regression is added to check whether the CSR difference has a (significant) positive effect on the returns of the acquirer, two years after the completion of the M&A. These returns are checked from the point of view of stakeholders and investors, in order to determine if a stakeholder/investor profits from the M&A based on the CSR difference of the firm's pre-M&A deal. As can be seen in the regression Table 11, the absolute CSR difference has no significant effect (b=0.0805, p=1.51) on the acquirer's 2 years returns. The control variables prove that other variables such as the acquirer ROA have a much higher significant effect (b=0.925, p=3.07) on the acquirer's 2 years returns. This positive effect of the acquirer ROA was definitely expected. Table 11 also shows that the target CSR value has no significant effect (b=-0.0379, p=-0.74) on the acquirer's 2 years returns. It does not do any harm nor good for the acquirers returns after 2 years.

Table 11. Regression Analysis Additional Analyses

	Acquirer 2 years Returns (OLS Regression)
	(1)
Absolute CSR Difference	0.0805
	[1.51]
Acquirer CSR	-0.0312
	[-0.70]
Acquirer Collateral	-0.275*
	[-1.86]
Acquirer ROA	0.925***
	[3.07]
Acquirer Market to Book Ratio	-0.0000148
	[-0.26]
Acquirer Marketcap	-0.000000818**
	[-2.36]
Acquirer Information Asymmetry	-3.488
	[-0.91]
Acquirer Hightech Firms (dummy)	0.143**
	[2.13]
Target CSR	-0.0379
	[-0.74]
Target Collateral	0.00143
	[0.19]
Target ROA	-0.0481
	[-0.45]
Target Market to Book Ratio	0.000125
	[0.25]
Target Marketcap	0.000000977
	[0.37]
Target Hightech firms (dummy)	-0.0325
	[-0.47]
Deal Relative Size	-0.0525
	[-0.37]
Intra Industry (dummy)	0.00474
	[0.13]
Hostile (dummy)	-0.019
	[-0.25]
Percentage of Stock Payments	-0.0172
	[-0.38]
Constant	-0.283***
	[-3.51]
N	551
adj. R-sq	0.317

An linear regression is performed on 1 separate independent variable, where (1) the absolute difference between the acquirer and target CSR is used.

*The T-statistics is presented between brackets (*p<0.10, **p<0.05, ***p<0.01").*

7. Conclusion

In conclusion, I have drawn up three hypotheses and used four main regressions, one of the four regressions consisting of two different models, to test these hypotheses. First. I make use of the Pearson correlation table to determine which variable pairs are highly correlated with each other in order to remove these from the same regression to avoid multicollinearity and to keep the results reliable. After this first step, I analyse the results of the regression tables. The first regression provides me with the results to reject the first alternative hypothesis and therefore accept the first null hypothesis: 'The higher the CSR difference, the lower the likelihood that the M&A deal succeeds.' With the help of the main independent variable, the CSR difference, and control variables, I conclude that M&A deals are more likely to succeed when the CSR values of target and acquirer are closer together. This value often says something about the corporate culture, e.g. about what is important for the firm's employees, from different levels within the firm. Similar cultural interests are a better match and will therefore also lead to a higher likelihood of the M&A deal to be completed. The second regression provides the results to accept the second null hypothesis: 'There is no correlation between the target CSR score and the acquisitions premium issued by the acquirer.' Contrary to what I expected beforehand, a higher target CSR score compared to that of the acquirer will not lead to a higher amount of goodwill paid in an M&A deal. Lastly, I accept the third alternative hypothesis as a result of the third regression: 'The acquirer CSR score increases 2 years after the completion of the M&A deal with a high CSR score difference.' By accepting this alternative hypothesis I conclude that a large difference between CSR score of the acquirer and the target will after a while eventually lead to an increase of the acquirer's CSR score. Therefore, it can be a suitable strategy for firms with a low CSR score to complete M&A deals with targets with a high CSR score in order to eventually increase their own CSR score. However, as an additional analysis, I did a fifth regression from which I conclude that the target CSR score neither negatively or positively affects the return of the acquirer firm after two years and that, from only a profit point of view, the acquirer does not need include this value in the decision making for an M&A deal. Thus, to return to the main

question of this thesis, "Does the M&A Strategy of SMEs lead to a change in the CSR performance of the acquiring MNEs?", I can therefore conclude that this is the case. This could ultimately mean that executives, managers and policy makers within companies could consider this as a viable strategy to solve the CSR related issues or to improve the CSR aspects by taking over other firms.

8. Discussion

The last chapter gives the limitations that I have encountered and also the recommendations that I want to give to other researchers and thesis writers to investigate further regarding CSR and M&A.

8.1 Limitations

The thesis has been carefully designed, executed and described, but like any research it has limitations in certain areas. Firstly, this research has a data limit regarding the availability of data from firms (in this case SMEs) that have fewer than 750 employees. These firms are usually too small for databases to keep accurate track of data. This makes my final dataset smaller, compared to other M&A research studies. It was then necessary to redefine the definition of an already unclear definition that belongs to small medium enterprises. Another limitation is calculating the aggregated CSR score where heterogeneity is lost. An example of this is when two firms, Firm X and Firm Y have their CSR score compared to each other, where Firm X has a total of 5 strengths and 5 weaknesses and Firm Y has a total of 32 strengths and 32 weaknesses. When calculating the aggregated scores of both firms, they have the same score. The CSR score is further determined on the basis that the same weight applies in the field of environmental aspect when it comes to assessing banks with oil companies. In practical terms, this is illogical, but unfortunately there is no database yet where CSR aspects are extensively maintained and regularly updated. The final limit in the thesis is the use of Market to book ratio to determine if a firm is overvalued or undervalued, instead of the price to book ratio, because of the limited availability of data, also data that is available is mostly incomplete.

8.2 Recommendations for Future Research

For future research it might be useful to also compute the marginal effects in order to determine the exact increase/decrease of the likelihood of M&A deals for a specific change of the value of CSR difference. It might also be valuable information not only to include a full sample but to

subdivide the samples into a sample where the CSR score of the acquirer is larger than that of the target and into a sample where the CSR score of the acquirer is smaller than that of the target. This will give more beneficial information about whether the target or the acquirer affects a certain regression outcome. A further recommendation for researchers in the future is to repeat the same study, but with a larger data set if the MSCI KLD database is updated again and contains more current data. As CSR becomes more important every year, more recent data is needed to better study the effect of CSR on and with other factors. If the resources are made available, a combination of qualitative and quantitative study would be performed. It would then be possible to analyze per M&A case. The findings of such a study could make the strategy even more credible.

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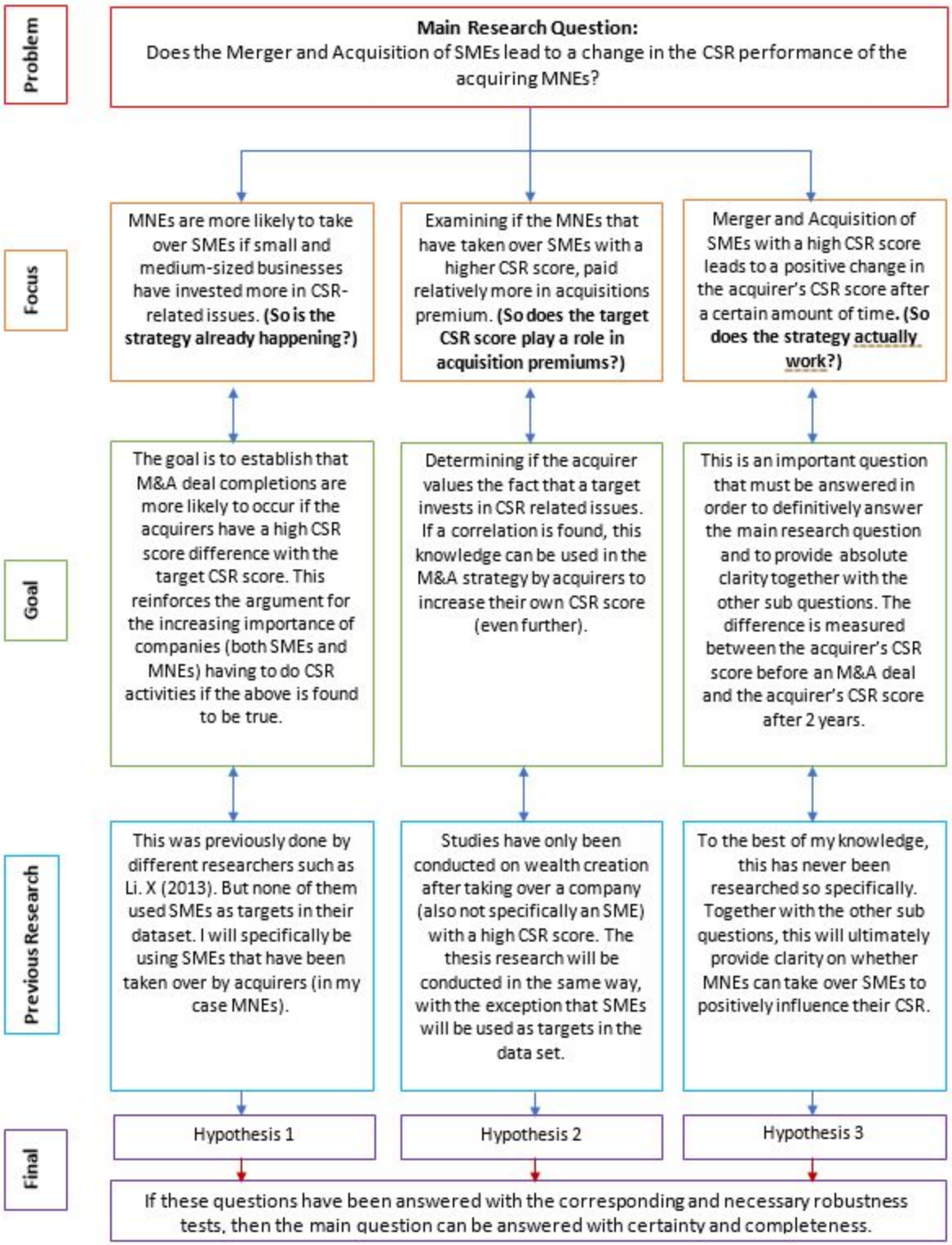
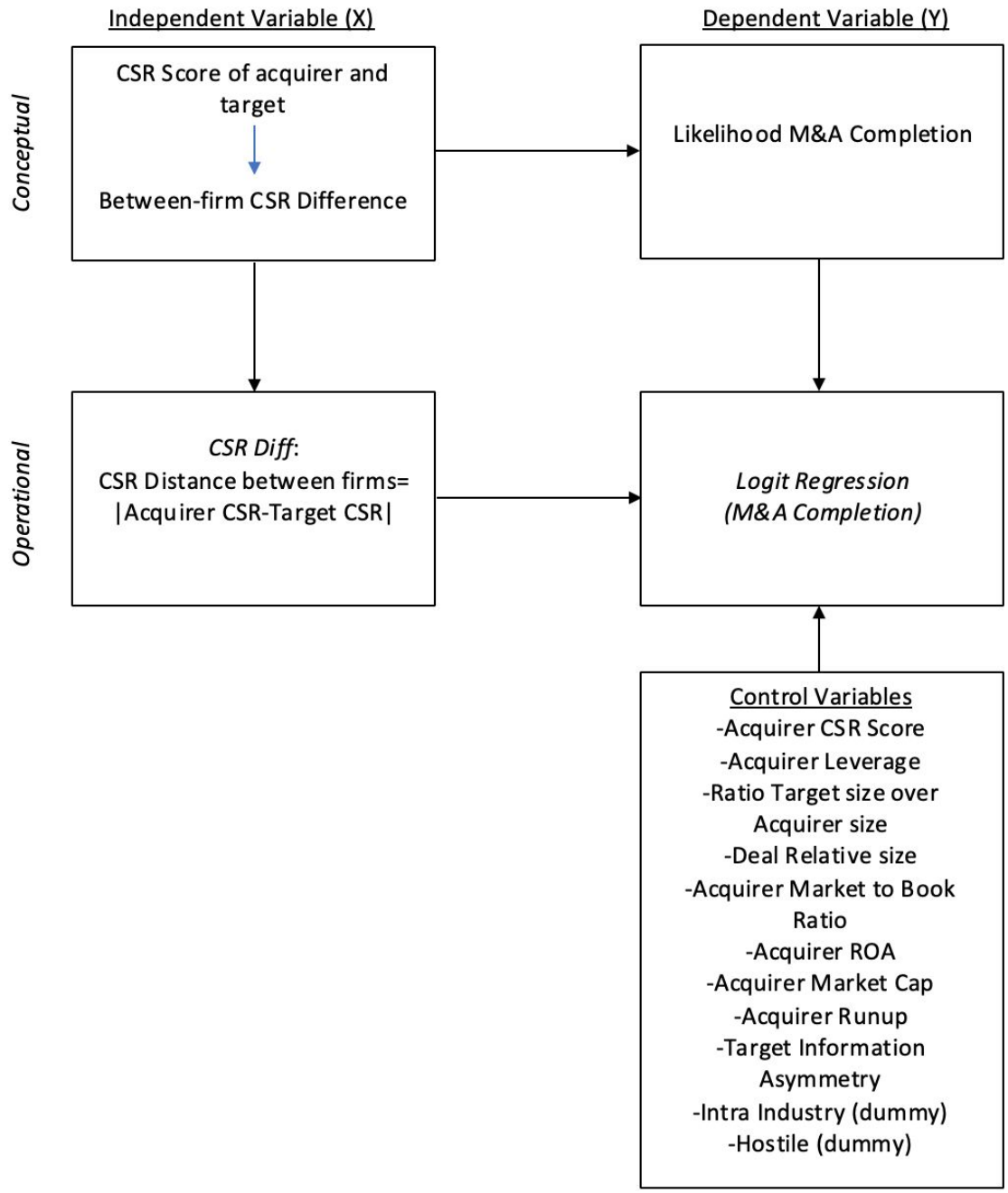
Appendix 1: Hypothesis Development



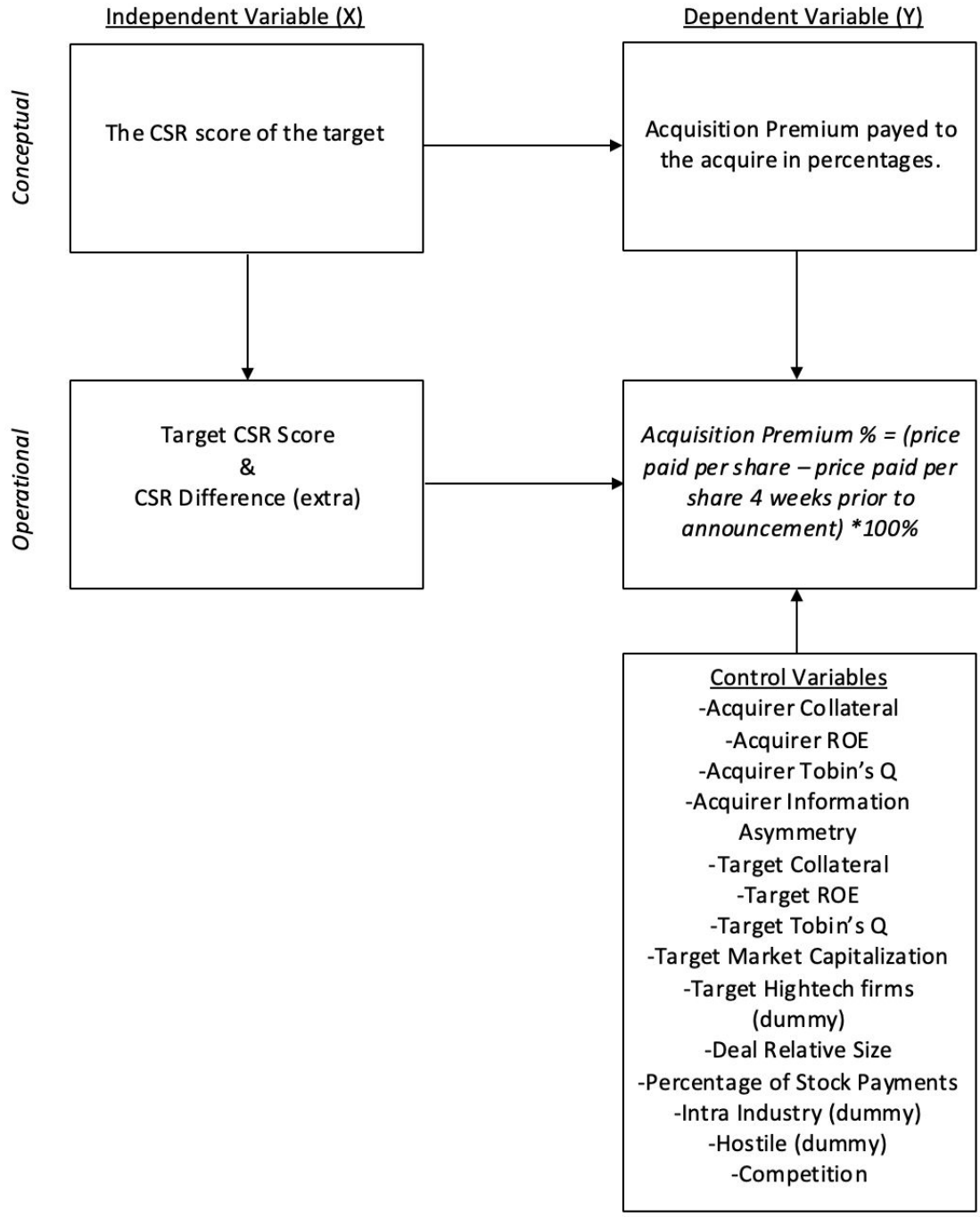
Appendix 2: LIBBY BOX - Hypothesis 1

Libby Box for Hypothesis 1:



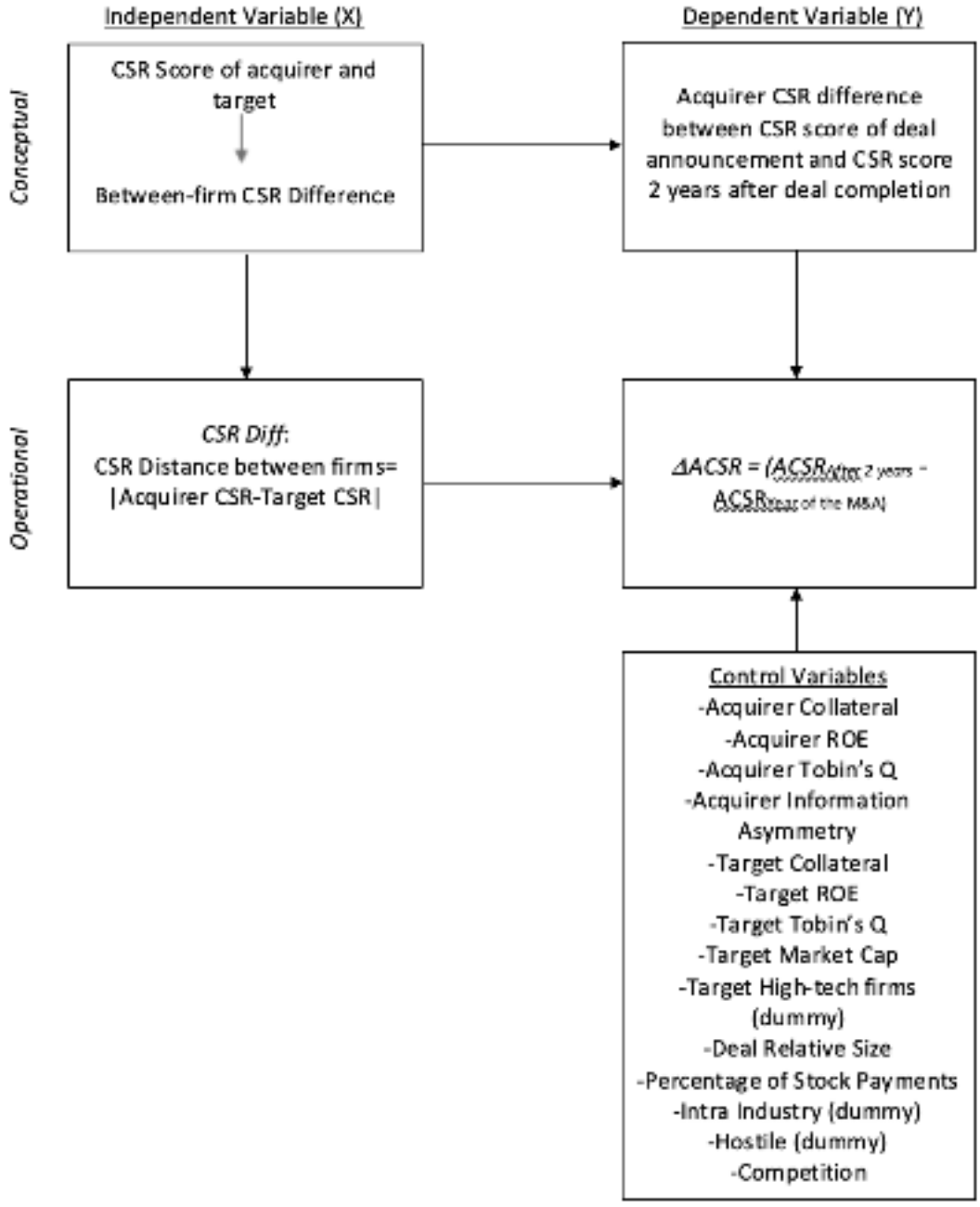
Appendix 3: LIBBY BOX - Hypothesis 2

Libby Box for Hypothesis 2:



Appendix 4: LIBBY BOX - Hypothesis 3

Libby Box for Hypothesis 3:



Appendix 5: Variable Definitions

Variable	Variable Code	Definition	Hypothesis #	Database/ Source
M&A completion **(Dependent Variable)**	Logit odds *M&A completion*	The first dependent variable is a binary variable. For this reason I use a logit model. The variable is assigned a value of "1" if a deal is completed and "0" for the contrary.	Hypothesis 1	Thomson Financial SDC
Acquisition Premium in percentage **(Dependent Variable)**	APremium (%)	The acquisition premium is calculated in percentage. The premium is determined by subtracting the price per share of 4 weeks prior from the price paid per share. The percentage is then calculated by dividing the premium by the price per share of 4 weeks prior.	Hypothesis 2	Compustat and Thomson Financial SDC
Difference acquirer CSR (after 2 years) **(Dependent Variable)**	Δ ACSR	The change in percentage of CSR score of the acquirer after a successful M&A after 2 years. $\Delta ACSR = (ACSR_{After\ 2\ years} - ACSR_{Year\ of\ the\ M\&A})$	Hypothesis 3	MSCI
Acquirer two year return **(Dependent Variable)**	Acquirer (two−year) return	I determined the acquirer two year return for the additional independent variable. The 2 year buy and hold abnormal return (BHAR) was used for this. The acquirer two year return is viewed here from the side of the profit / loss that shareholder and / or investors make.	Hypothesis 4 (Additional Analysis)	CRSP
Acquirer CSR	ACSR	The acquirer's CSR score is calculated by the 5 strengths and groups of main indicators that the MSCI database uses. For each firm, the aggregate strengths (AGS) and concerns (AGC) are calculated separately, by adding the indicators together and dividing by the number of indicators respectively. Finally, the aggregate strengths are subtracted from the aggregate concerns to determine the final CSR score per firm. Final CSR score per firm: [CSR Acquirer=AGS−AGC]	Hypothesis 1 Hypothesis 4	MSCI

Target CSR **(Main independent variable)**	TCSR	The target CSR score is calculated by the 5 strengths and groups of main indicators that the MSCI database uses. For each firm, the aggregate strengths and concerns are calculated separately, by adding the indicators together and dividing by the number of indicators respectively. Finally, the aggregate strengths are subtracted from the aggregate concerns to determine the final CSR score per firm. Final CSR score per firm: [CSR Target=AGS−AGC]	Hypothesis 4	MSCI
Absolute CSR Difference **(Main independent variable)**	CSRDIFF	CSR Difference = |Acquirer CSR−Target CSR| The CSR difference is calculated in absolute values. The values are therefore greater than 0.	Hypothesis 1 Hypothesis 2 Hypothesis 3 Hypothesis 4	MSCI
Acquirer Leverage	ALEVERAGE	The acquirers leverage is determined by adding the long term debt to the cost of capital of the acquirer. This value is then divided by the total stockholders equity of the acquirer. See below for equation: ALeverage = (Long-term Debts + Cost of Capital) / Stockholders Equity (total)	Hypothesis 1	Compustat
Acquirer Market to Book Ratio	AMB	AMB = (Acquirer market value Equity) / (Acquirer book value Equity)	Hypothesis 1 Hypothesis 4	Compustat, Thomson Financial SDC and CRSP.
Target Market to Book Ratio	TMB	TMB = (Target market value Equity) / (Target book value Equity)	Hypothesis 4	Compustat, Thomson Financial SDC and CRSP.
Acquirer Return on Asset Ratio	AROA	The return on asset ratio is calculated by dividing the acquirer's net income over the acquirer's total assets (year end prior to M&A deal announcement).	Hypothesis 1 Hypothesis 4	Compustat and Thomson Financial SDC

Target Return on Asset Ratio	TROA	The return on asset ratio is calculated by dividing the target's net income over the target's total assets (year end prior to M&A deal announcement).	Hypothesis 4	Compustat and Thomson Financial SDC
Acquirer Market Capitalization	AMKTCAP	The acquirer's market capitalization refers to the acquirer's market value. The log function is applied because the market value has many outliers in the dataset. The log function can account for this factor.	Hypothesis 1 Hypothesis 4	Compustat, Thomson Financial SDC and CRSP.
Target Market Capitalization	TMKTCAP	The target's market capitalization refers to the target's market value. The log function is applied because the market value has many outliers in the dataset. The log function can account for this factor.	Hypothesis 2 Hypothesis 4	Compustat, Thomson Financial SDC and CRSP.
Runup	ARUNUP	The runup is the sudden increase in stock price for the firms. The variable is defined by the buy and hold abnormal stock returns (BHAR) for 60 days before the deal announcement day.	Hypothesis 1	CRSP
Acquirer Information Asymmetry	AIA	The acquirer information asymmetry refers to when information failure occurs. This can be included as a variable in the regression by the standard deviation of the residuals FF 3-factor model of the daily returns within 250 trading days before the deal announcement day.	Hypothesis 1 Hypothesis 4	CRSP
Target Information Asymmetry	TIA	The target information asymmetry refers to when information failure occurs. This can be included as a variable in the regression by the standard deviation of the residuals FF 3-factor model of the daily returns within 250 trading days before the deal announcement day.	Hypothesis 1 Hypothesis 4	CRSP
Intra Industry (dummy)	INTRAIND	The intra industry dummy variable equals 1 if the acquirer and the target SIC code are the same and 0 if not.	Hypothesis 1 Hypothesis 4	Thomson Financial SDC

Hostile (dummy)	HOSTILE	The hostile dummy variable means if the M&A deal is hostile or not. If the variable is 1 then it is a hostile deal and 0 if it is not.	Hypothesis 1 Hypothesis 4	Thomson Financial SDC
Acquirer Collateral	ACOLLATERAL	For the acquirer's collateral, the ratio of the acquirer's property, plant and equipment (PPE) and the book value of the total assets (before the year end for the M&A deal announcement).	Hypothesis 2 Hypothesis 4	Compustat and Thomson Financial SDC
Target Collateral	TCOLLATERAL	For the target's collateral, the ratio of the target's property, plant and equipment (PPE) and the book value of the total assets (before the year end for the M&A deal announcement).	Hypothesis 2 Hypothesis 4	Compustat and Thomson Financial SDC
Acquirer Return on Equity Ratio	AROE	This variable refers to the acquirer return on equity ratio (ROE).	Hypothesis 2	Compustat
Target Return on Equity Ratio	TROE	This variable refers to the target return on equity ratio (ROE).	Hypothesis 2	Compustat
Acquirer Tobin's Q Ratio	ATOBINQ	The Tobin's Q is used as a financial performance measurement. This is computed by using the following equation: Tobin's Q = (Total Market Value of Firm/Total Asset Value of Firm)	Hypothesis 2 Hypothesis 3	Compustat, Thomson Financial SDC and CRSP.
Target Tobin Q Ratio	TTOBINQ	The Tobin's Q is used as a financial performance measurement. This is computed by using the following equation: Tobin's Q = (Total Market Value of Firm/Total Asset Value of Firm)	Hypothesis 2 Hypothesis 3	Compustat, Thomson Financial SDC and CRSP.

Acquirer High-tech Firms (dummy)	AHIGHTEC	If the acquirer is a high-tech firm, then the dummy variable equals 1, if not, then 0.	Hypothesis 4	Thomson Financial SDC
Target Hightech Firms (dummy)	THIGHTEC	If the target is a high-tech firm, then the dummy variable equals 1, if not, then 0.	Hypothesis 2 Hypothesis 3 Hypothesis 4	Thomson Financial SDC
Percentage of Stock Payments	%STOCK	What percentage the acquirer pays in shares for the target.	Hypothesis 2 Hypothesis 4	Thomson Financial SDC
Competition (dummy)	COMP	The competition variable is 1 if there is more than one bidder for the M&A deal and is 0 if there is only one bidder.	Hypothesis 2 Hypothesis 3	Thomson Financial SDC
Ratio of Target size over Acquirer size	RELSIZE	The ratio is computed by dividing the target total assets over the acquirer total assets.	Hypothesis 1	CRSP
Deal Relative Size	DRELSIZE	DRELSIZE = (Price acquisition transaction) / ((SUM price acquisition) + bidder's market capitalization)	Hypothesis 1 Hypothesis 4	Compustat and Thomson Financial SDC