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The impact of CSR on M&A deals: Does the culture matter?

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Abstract

The demand from consumers and investors for sustainable businesses has increased the importance of Corporate Social Responsibility. This has led to many papers over the years studying the influence of CSR on various firm financial and non-financial aspects. The thesis examines the relationship between CSR of acquirer firms, which is proxied by their ESG score and the likelihood and length of completing M&A deals based on 1,769 deals from the years 2007 to 2019 where both deal parties are headquartered in the EU. Additionally, the up to this point less well studied moderating role of national cultural distance is explored. The findings revealed no empirical evidence to accept the hypothesis that CSR would increase the likelihood of an M&A deal closing. However, the analysis shows that CSR does play a strong and significant role in relation to time to complete an M&A deal.. In the end, partial support is found regarding the moderating role of national cultural distance where higher levels reduce the negative impact of CSR on M&A deal duration.

Keywords: CSR, ESG, Mergers and Acquisitions, Deal success, Deal duration

JEL codes: G34, M14

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

"To ensure sustainable growth, it is necessary for a company to make a positive impact on the surrounding environment, as well as on its stakeholders, such as consumers, employees, investors, communities, and others" (Han et al., 2016, p.61). It is undeniable to state that over the last decade, there has been an enormous growth in the importance of such an impact called Corporate Social Responsibility (CSR). "CSR is a self-regulating business model that helps a company be socially accountable to itself, its stakeholders, and the public" (Investopedia.com). Practices of CSR were started by some European countries as early as the 1800s, and Europe can be classified as a frontrunner of sustainable practices (CSR Practices in European Countries). As one would expect, the CSR of an organization has an influence on various parts of its operations, such as financial performance, brand name, credit rating, mergers and acquisitions, etc. While we have outlined the crucial place of CSR in today's world, it is also valuable to ask the question of whether the markets reward such compliance with the regulations. Several empirical articles tackled this question by studying CSR in relation to merger and acquisitions deals. Subsequently, mergers and acquisitions (M&A) continue to be a dominant strategy for organizations (Gupta et al., 2012). Unfortunately, we can observe that almost 70% to 90% of M&A deals fail, as acknowledged by the Harvard Business Review (Jackson, 2020). Exploring the correlation between CSR and M&A not only helps us to understand stakeholder satisfaction but can also assist firms to increase the success rate and diminish the lengthy process of M&As.

Many researchers have studied the aforementioned relationship in the context of how CSR creates value for acquiring firms' shareholders. One of the most influential research projects on this topic includes the paper "Corporate social responsibility and stakeholder value maximization: Evidence from mergers" by Deng, Kang, and Low (2013). There, the authors demonstrate that high-CSR acquirers realize higher merger announcements, more positive long-term stock returns, a higher success rate, and a lower completion time for M&As compared to low-CSR acquirers. This is done by using a sample consisting of US firm CSR scores and corresponding mergers between the years 1992 and 2007. The tests employed used several regression analyses and robustness tests to ensure no industry effects were present and to rule out alternative explanations for the results. We can additionally include more current studies, such as "Market reaction to the effect of corporate social responsibility on mergers

and acquisitions: Evidence on emerging markets" which extends Deng's work by studying the phenomenon in a more international environment. The conclusion is again consistent with the idea that a high CSR score of the acquirer firm is positively related to the success of M&A deals. Meanwhile, the article researched by Arouri and Gomes (2019) explicitly states that the CSR of acquirer firms negatively impacts the uncertainty of M&A completion.

In this thesis, I will replicate the findings of Deng et al. (2013) regarding sustainability, M&A deal uncertainty, and time to completion in the European Union market in order to check the external validity while using recent data as their sample is only limited till the year 2007. The choice to study the EU market was principally based on economic and cultural differences from the US. Moreover, there are variations in CSR calculations and approaches among the mentioned regions. For instance, the US and other English-speaking countries apply the Anglo-Saxon approach, while the Continental European method is used by countries located in identically named area. In the article by Jackson and Apostolakou (2010), the authors find evidence indicating a lower score on most dimensions of CSR for EU countries. Likewise, there is evidence of idiosyncrasies in M&A in the EU that arise due to the structural characteristics of the European business environment (Moschieri and Campa, 2013).

Furthermore, the concept of national cultural difference (distance) is introduced playing the role of moderator. The distance score is based on the framework of Geert Hofstede. Many scholars have studied the relationship between national cultural differences and M&A deals, both before and after deal completion. Dikova et al. (2010) concluded that "differences in national formal and informal institutions explain part of the variation in the likelihood that an announced cross-border acquisition deal will be completed, as well as the duration of the deal-making" (p.223). Although the culture of a certain nation is known to affect its sustainability (Orij, 2010), the same cannot be said about the connection between the acquirer and target nation's cultural differences and the CSR of the firm in the acquirer country. However, as cultural distance plays a strong role in influencing M&A deal uncertainty and duration of deal, it is hypothesized that sustainability of the firm would play a lesser role when high cultural variances amongst two nations exist. These ultimately lead to three research questions being: "How does the CSR of acquirer firms relate to the probability of M&A deals being successful?", "Is there a negative correlation between the CSR of acquirer firms and the time for M&A deals to be completed?" and "How does the cultural difference alter the role of CSR in explaining M&A deals?".

Following the research questions, the thesis is primarily focused on describing the impact of CSR on M&A. Environmental, Social, and Governance (ESG) scores as a proxy for CSR will be considered, which is a common process in academic literature. Similarly, Han (2016), in his research analysis, uses the ESG score as well to examine the relationship between CSR and corporate profit. A representative sample of acquirer firms' data from only member states of the European Union that have made a deal through the years 2007 to 2019 will be collected from Bureau van Dijk's Orbis, CompuStat IQ, and Refinitiv Asset 4. A cross-sectional regression analysis will be performed with the length of the M&A deal as the dependent variable and the ESG score as the independent variable. In a similar way, the second regression will be logistic and examine the correlation between deal success rate and firm ESG score. Additionally, two more regressions studying the interaction effect between the national cultural distance variable and the ESG score of the acquirer firm will be done. Akin to Deng et al., my control variables included are either firm- or deal-specific characteristics, which are firm size, free cash flow, leverage ratio, return on assets, and deal size, in-border dummy, respectively.

I hypothesize that the CSR of European acquirer firms will be positively associated with the completion rate of M&A deals, negatively correlated with the amount of time to finish the deals, and that national cultural distance will moderate the relationship between CSR and M&A variables. I speculate that these results will be identical to those done by previous researchers for US firms and firms from emerging countries. The results will be visible in the tables after their statistical analyses. My expectations are that this thesis will put an end to the debate about the external validity of US firm findings to other parts of the world despite contrasts amongst markets and regulations and whether cultural differences and time effects play any role.

The remainder of the thesis is structured as follows. Chapter 2 discusses relevant previous literature regarding dependent, independent, and moderator variables, including the relationship between them. Chapter 3 focuses on the data collection process and in-depth analysis of variables. In Chapter 4, I introduce the required models for regression analyses done and discussed in Chapter 5. The final chapter consists of a conclusion for the thesis. Moreover, a bibliography and appendices are presented from page 25 onward.

Chapter 2: Theoretical Framework

2.1 *Mergers and Acquisitions*

For the purpose of this study, initially explaining clearly what mergers and acquisitions are and how I will define it in further parts of this thesis is essential. Mergers and Acquisitions (M&A) are the activities of combining with or buying another company or advising another company on how to do this (Cambridge Business English Dictionary). There are several common transactions that fall under the umbrella of M&A, including consolidations, tender offers, management acquisitions, and so forth (Hayes, 2023). M&A is a highly widespread form of financial development, and in 2004, 30,000 deals were completed, making one transaction every 18 minutes during that year (Cartwright and Schoenberg, 2006). There are several reasons why a firm would engage in M&A deals. It could be to reduce the cost and achieve economies of scale by entering a new market and thus gaining more market power (Pennings et al., 1994; Trautwein, 1990), or simply for diversification (Wheelen and Hunger, 2001). Although many aspects of M&A deals exist, I will focus on two characteristics, mainly the success rate of the deal and the time that is needed to complete the deal.

The factors contributing to the success of M&A deals have been extensively studied in relation to various concepts over the years. In this instance, the success of a deal is defined as when the deal status is recorded as completed. Hunt (1990) mentions the findings of Kitching's (1967) seminal work in explaining the factors behind the success probability of M&A deals where it is hypothesized that horizontal mergers are less risky than concentric acquisitions and the mismatch in firms' turnover highly likely leads to failure. In the article by Beitel et al. (2004), to explain M&A success in European banks, authors study 13 factors, including "the product/activity focus of a transaction, the geographic focus of a transaction, the size of the target, the growth focus of a transaction, the risk reduction potential of a transaction, the profitability (profit efficiency) and the cost efficiency of the target and/or the target in relation to the bidder, the capital market performance of the target prior to a transaction, the experience of the bidding bank, and the method of payment (cash or stock)" (p.111), and find significant conclusions regarding these explanatory variables. To verify the results, the authors utilized data from 98 large M&A deals between the years 1985 and 2000. The requirements for deals to be included in the data were that the deals should have an announcement date, the acquirer and target should be a European bank, and the deal value

should be higher than \$100 million. The primary statistical analysis method was an event study. Meanwhile, Calipha and Song (2002) argue that understanding the motives behind mergers and acquisitions can be attributed to understanding the success or failure of the deals. These motives are achieving synergy ("The word synergy is derived from the Greek word synergos, which means working together" (Campbell and Goold, 1998, p.139)), managerial self-interest, and hubris.

Although with the abundant data, very little is recognized on what influences deal completion duration. Time is generally depicted as the difference in calendar days between the announced and completed days of a specific deal. Previous literature implies that firm, transaction specific factors and institutional, regulatory disparities between deal parties contribute to changes in the duration of completed deals (Picquet, 2017). In the research done by Luypaert and De Maeseneire (2014), drivers of deal completion time are studied due to prolonged deal duration being costly and postponing realizing synergy gains. Utilizing the data of 1,150 M&A deals from US firms during 1994–2011, it is suggested that deal complexity substantially affects the time of completion. Furthermore, strong and clear shareholder assistance has a positive effect. In the end, it is observed that experienced bidders have a higher probability of finishing the deal in less time, which implies learning effects. The idea of learning effects is likewise supported by Roh et al. (2021). When analyzing the US semiconductor industry, the evidence in favor was found and quoted as follows: "Firms could learn to increase their deal completions by leveraging their experience from prior successful acquisitions, and their cumulative success could reduce the deal completion time" (p.1).

2.2 *Corporate Social Responsibility*

Corporate Social Responsibility, or simply CSR, is the concept of bringing socio-economic concerns into business models. A meta-review of 588 journals and 102 books by Aguinis and Glavas (2012) examines predictors, outcomes, mediators, and moderators of CSR at various levels of analysis. The reasons for a firm to practice sustainability may be due to stakeholder pressures (Agle et al., 1999), while according to Aguliera et al. (2007), stakeholders' motivations behind this are instrumental, relational, and moral (Aguinis and Glavas, 2012). In general, CSR activities result in improvements for firms. However, there are counterarguments to the positive role of CSR; hence, it is still argued in which way CSR of a firm affects its financial performance and other financial aspects. Hongxin et al. (2022)

summarized the most well-known research regarding this issue and presented two opposing schools of thought. The first, led by Friedman, concluded that, despite popular belief, CSR in fact negatively impacts a firm's financial performance. Seminal studies by McGuire et al. (1988), Vance (1975), and Brammer (2008) are also in favor of this idea (Hongxin et al., 2022). Friedman's idea is an example of a shareholder expense view. While Frederick and others argue against shareholder theory, they are supportive of stakeholder maximization theory, which states that "managers should attempt to balance the interests of all corporate stakeholders, including not only financial claimants but employees, customers, communities, and governmental officials" (Jensen, 2010, p.32).

It is safe to say that nowadays, CSR is an inseparable strategy for firms globally (Isaksson, 2014). Besides financial performance, CSR has been studied in relation to firm competitiveness (Vilanova et al., 2008), innovation (Ratajczak and Szutowski, 2016), national culture (Peng et al., 2012), etc. It is likewise necessary to mention that CSR in academia is thought to be an "umbrella" construct (Gond and Crane, 2010) and is proxied by various variables, including the firm's ESG score utilized in this paper (Bouten et al., 2018).

2.2.1 Environmental, Social, and Governance score

In accordance with the CFI Institute, "An ESG score is an objective measurement or evaluation of a given company, fund, or security's performance with respect to Environmental, Social, and Governance (ESG) issues". ESG provides a more quantitative measure of sustainability, and thus CSR is considered a part of this score. As our world is facing numerous challenges not only from an environmental standpoint but also from a humanitarian perspective, the importance of regulations such as ESG investing has increased tremendously over the years.

ESG scores have similarly been relevant in the academic scene since the 1970s. The studies include how ESG scores influence firm size, firm performance, risk, etc., and vice versa. In the review study by Friede et al. (2015), authors collectively investigated 2,200 studies concerning the relationship between financial performance and ESG score, reporting positive findings 90% of the time. Another accepted approach to using ESG in research is inspecting investor behavior. Evidence from the Global Survey suggests that full integration of ESG investment style is the most beneficial use and driven by investment performance, while negative screening is the least valuable (Amel-Zadeh and Serafeim, 2018). The survey was

created based on the literature of Amel-Zadeh (2016) and was sent to senior investors. In the end, investors were asked to rate the investment styles on a scale of 1 to 5, and results indicated that the majority of investors thought the full integration style was the most impactful, while negative screening method, which excludes some sectors or firms when investing, is considered to not even have a positive influence on performance. Moreover, ESG scores are involved in predicting the credit scores of firms as well. In the paper analyzing firm ESG scores and bond returns in Korea by Jang et al. (2020), the authors deduce that scores include important information about downside risk and that credit rating agencies should integrate ESG scores into their rating processes. While in order to understand global crisis effects, the article by Broadstock et al. (2021) studies the role of ESG performance during the COVID-19 crisis period using a dataset covering China and finds evidence that ESG performance reduces financial risk during financial crises, and as its impact is diminished during "normal" times, this confirms the incremental importance of ESG performance during crises.

2.3 *The role of CSR in M&A deals*

After describing both outcome and predictor variables, I now commence in exploring the link between them by looking into previous studies done throughout the years. It is important to note that certain papers research the link using various indicators for sustainable investing, which can ultimately be applied to the context of CSR in my thesis. Unfortunately, still little is known about the relationship, as many articles focus either on post M&A performance or on reverse correlation in other cases.

In the research conducted by Deng et al. (2013), the authors examine whether CSR creates value for acquiring firms' shareholders using a sample of 1,556 US firms from 1992 till 2007 obtained through the SDC Platinum database. By performing 2SLS regression and Cox survival analyses, it was concluded that mergers by high-CSR acquirer firms result in a higher likelihood and shorter duration of deal completion. Recently, a paper done by Zheng et al. (2022) studied a similar question of Deng's paper using ESG scores instead as in this thesis, by utilizing a sample consisting of 1,489 Chinese M&A deals and their corresponding firm data. The results are summarized by implying that acquirers are more effective in closing deals when they have higher ESG ratings or ESG rating upgrades for companies with poor initial ESG ratings.

Furthermore, Arouri and Gomes (2019) have contributed to the CSR literature by specifically studying acquirer firms' scores and M&A deal completion uncertainty measured by arbitrage spreads. The sample was selected from both successful and unsuccessful M&A international bids between the years 2004 and 2016 from the SDC Platinum database. While for the measure of CSR score, the Asset4 ESG database was proxied, which in the end contained 726 deals. The authors document that there exists a negative association between arbitrage spreads and acquirer firms' CSR, where one standard deviation unit increase in CSR leads to a 1.10 percentage point decrease in arbitrage spreads, suggesting that CSR score affects deal completion uncertainty in a negative way. In addition, Cardillo and Harasheh (2022) in their article discussed the question of whether divergence in ESG scores of both acquirer and target firms relates to deal timing in M&A transactions. Utilizing Zephyr to collect M&A data and Thomson Reuters for ESG data, the authors do a series of regression analyses indicating evidence that "divergent ESG performance between target and acquirer firms matters for the M&A deal timing" (p.6). Following the reviewed literature, I can now present two hypotheses that naturally emerge:

Hypothesis 1a: *ESG score of the acquirer firm positively influences the probability of success of the M&A deal in the European Union.*

Hypothesis 1b: *ESG score of the acquirer firm negatively influences the time to complete the M&A deal in the European Union.*

2.4 *National Cultural Difference*

"Culture is more often a source of conflict than of synergy. Cultural differences are a nuisance at best and often a disaster" (Geert Hofstede). Hofstede defines culture as "the collective mental programming of the human mind that distinguishes one group of people from another". It is acknowledged that disregarding cultural distance between nations often results in unsuccessful business cases (Ricks, 1993). Hofstede's cultural dimensions consist of six distinctive measures, which are power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence vs. restraint indexes. The initial four dimensions were created using the questionnaire, which consisted of 24 content questions from a sample of more than 40 countries globally. Later, two additional dimensions, long-

term orientation and indulgence indexes, were developed based on Minkov and Hofstede's (2010) further research.

Although there is a very limited number of papers analyzing the influence of cultural distance on M&A deals, they are still enough to draw several valuable conclusions. Dikova et al. (2010), in their research, investigated 2,389 announced acquisition deals and stated that national cultural differences negatively affect the likelihood of completion of the deal, while the opposite is true regarding the time to complete the deal. Meanwhile, Popli and Kumar (2015) focused on emerging markets, specifically India, concluding that marginal cultural distance is a reliable predictor of the probability of successfully completing an M&A deal. Likewise, the thesis by Anja van Gurp (2018) replicates the identical relationship based on 790 announced deals from China between 2001 and 2016. However, the thesis found quite contradictory results, suggesting that cultural distance increases the likelihood of deal completion and providing no support for previous firm experience as moderator.

It is challenging to relate national cultural distance between two countries to the ESG score of firms in the home country. Often, culture or cultural distance is applied as a moderator in known relationships between ESG and other variables. Examples include culture and cultural differences in multinational companies moderating the role of ESG score on a firm's financial performance (Wasiuzzaman et al., 2022; Shin et al., 2022; Xu and Liu, 2023). Ultimately, based on the reviewed literature on the known significant role of national cultural distance in influencing both M&A deal completion and time lapse to complete the deal, I therefore construct two additional hypotheses being:

Hypothesis 2a: *National cultural distance moderates the positive impact of ESG of acquirer firm on M&A deal completion likelihood such that it is decreasing for higher levels of NCD in the European Union.*

Hypothesis 2b: *National cultural distance moderates the negative impact of ESG of acquirer firm on time to complete an M&A deal such* that *it is decreasing for higher levels of NCD in the European Union.*

Chapter 3: Data

3.1 *Sample collection*

The final sample used for statistical analyses in this thesis includes 1,769 announced M&A deals from 2007 until 2019, including only those between firms that are part of the European Union (the United Kingdom is also present as UK officially left the EU on January 31, 2020). The period until 2019 was chosen due to it being before the COVID-19 crisis; thus, I don't take into consideration delays, cancellations, and other shocks that happened during. M&A deals were collected from the Orbis interface of Bureau van Dijk. The database allowed for the inclusion of ISIN codes for acquirer firms, which are unique identifiers of a company, giving the possibility of merging datasets from other data sources. ESG scores for corresponding acquirer firms were obtained from the Refinitiv Asset4 framework. The framework consists of 10,000+ companies globally and provides combined and separate scores for each ESG component. As many firms have disclosed their ESG scores since the last decade, firms with missing values were removed. In the end, the scores for 627 unique acquirer firms that met the criteria were left. Deal observations are higher due to a firm making on average more than one deal during the time span chosen. The corresponding financial data was collected from the CompuStat Global Fundamentals Annual database. The data for cultural scores was imported from https://geerthofstede.com/.

3.2 *Variables of interest*

In order to test the hypotheses presented, two dependent variables were constructed from M&A data collected through Bureau van Dijk's Orbis. The following criteria were used when filtering the data: The deals must be announced, and the date of announcement and last status day must be between 2007 and 2019, inclusive. The variable "Deal success," which includes 1,769 observations, is a dummy variable assigned 1 if the deal was stated as "Completed" and 0 if the deal status is "Withdrawn". The variable "Deal time" has 1,708 observations, as only deals that are successful are studied. Deal time is measured as the difference between the completed date and the announced data of the deal, with the lowest deal time being 0. This usually includes deals that are cash transactions or possibly pre-negotiated.

The independent variable of the thesis is the ESG score of the acquirer firm. The variable is collected via merging the M&A Orbis dataset and the Asset4 dataset based on ISIN identifier

availability and has 1,769 observations. Asset4 itself consists of several variables for every pillar of ESG. This thesis focuses on the variable "ESG score", which is an overall ESG mark of a company without ESG controversies overlay. The difference between a simple and combined ESG score is that if controversies are present, the ESG score of the company is lower for that year. Scores are between 0 and 100, with 100 demonstrating better sustainability.

3.3 *National Cultural Distance score*

As for the moderator variable, cultural scores for both acquirer and target firm countries are obtained where they only involved cross-border deals, meaning deals went through between two separate countries and were not domestic. Thus, only 538 observations were left to consider. Below, the descriptions for each culture index are presented, and I will only focus on the original four, not considering the later added two dimensions:

Power Distance Index (PDI): "is defined as the extent to which the less powerful members of institutions and organizations within a society expect and accept that power is distributed unequally**.** The score is between 0 and 100 scale with 0 representing not accepting inequality and 100 representing high acceptance" (VSM manual, 2013, p.7).

Individualism Index (IDV): "is the opposite of Collectivism. Individualism stands for a society in which the ties between individuals are loose: a person is expected to look after himself or herself and his or her immediate family only. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which continue to protect them throughout their lifetime in exchange for unquestioning loyalty. The range is between 0 and 100 with 0 being collectivist country and 100 being highly individual country" (VSM manual, 2013, p.7).

Masculinity Index (MAS): "is the opposite of Femininity. Masculinity stands for a society in which social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap: Both men and women are supposed to be modest, tender, and concerned with the quality of

life**.** Here the scale of 0 represents feminine country and 100 represents masculine country" (VSM manual, 2013, p.8).

Uncertainty Avoidance Index (UAI): "is defined as the extent to which the members of institutions and organizations within a society feel threatened by uncertain, unknown, ambiguous, or unstructured situations. Index has a range of 100 between weak and high uncertainty avoidant countries" (VSM manual, 2013, p.8).

The distance is calculated using the absolute difference of the sum of four indexes for the acquirer and target country divided by four, where absolute was chosen as it is possible for the target country to have a higher overall cultural score. The formula is presented below, where underscore A depicts the acquirer country, T depicts the target country correspondingly, and NCD is the total national cultural distance between countries:

$$NCD = \frac{|(PDI_A + IDV_A + MAS_A + UAI_A) - (PDI_T + IDV_T + MAS_T + UAI_T)|}{4}$$

3.4 *Control variables*

To control omitted variable bias in the relationship between CSR and M&A deals, six control variables are added, which are based on the findings of Deng et al. (2013) and Cardillo (2022). These are comprised of firm size, leverage ratio, free cash flows, and return on assets as firm-specific variables, and relative deal size and in-border dummy as deal-specific variables. The firm-specific variables are not available in this form; thus, they were calculated via the combination of several other variables from CompuStat. The following formulas were used in the process. Variable firm size is proxied by the natural logarithm of the total firm's assets. While the leverage ratio is calculated by dividing the firm's total liabilities with its total assets. The construction of the return on assets was tricky due to a firm's net income not existing as a separate variable in the CompuStat dataset for firms outside of North America. Hence, net income is created through the addition of income before extraordinary items, extraordinary items, and discontinued items. The new income variable is then divided by total assets. The free cash flow variable is defined as the difference between the firm's operating cash flow activities and capital expenditures. A further representation of formulas is presented in Appendix A.

All the financial data variables were converted into euros as countries including Bulgaria, the Czech Republic, Denmark, Hungary, Poland, Romania, Sweden, and the United Kingdom use their own national currencies. While dummy in-border is assigned a value of 1 if the deal happens domestically and 0 otherwise.

3.5 *Descriptive statistics*

Table 1 depicts summary statistics. We can observe from the second column that 96.5% of all observations are successful and thus have a known deal time. The longest deal time shown is 1,268 days, which was a 100% acquisition of Feri AG by German financial services company Mlp AG between 2007 and 2011. The average ESG score of firms is 54.688, with the lowest being 2.83, recorded by Marlowe PLC in 2017. Meanwhile, the maximum documented deal value is the €50 billion acquisition of BP PLC by Royal Dutch Shell PLC, which was rumoured in 2014 with a value of €113 billion but was officially announced and completed later in 2016. On average, the national cultural distance between countries is 11.7 points, with 39.25 points being the highest within Denmark and Belgium. While 69.3% of deals are domestic, leaving us with 538 NCD observations where 5 observations are missing due to the Republic of Cyprus not being depicted in Hofstede's cultural dimensions list.

Table 1: Summary statistics of all relevant variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Deal success	1,769	.965	.183	0	1
Deal time	1,708	66.519	106.696	0	1268
ESG score	1,769	54.688	20.919	2.83	94.28
Deal value (In thousands)	1,769	665,730.8	2,800,391	30	5.08e+07
In-border dummy	1,769	.693	.461	0	1
Firm size	1,769	9.009	2.245	3.155	14.605
Leverage ratio	1,769	.657	.207	.001	1.368
Return on assets	1,769	.043	.069	-.609	1.764
NCD	538	11.677	8.834	0.75	39.25
Free cash flow (In millions)	1,769	912.02	6,436.591	-48,668.977	213,758

Notes: The table presents summary statistics for dependent, independent and control variables.

3.6 *Variable modification*

In order to commence with the statistical analyses, necessary adjustments regarding the sample need to be made. As every variable involved has different measurements, such as in millions, in thousands, between 0 and 100, etc., the STATA command was used to normalize them, which converts values between 0 and 1 without distorting the variations in the ranges of values (Jaitley, 2019). The following command, finding the difference between the selected variable and the minimum value of the variable divided by the difference between the maximum and minimum values of the variable, was utilized. Furthermore, a correlation matrix (Appendix A) displays no strong linear relationship between the variables.

Chapter 4: Methodology

The first approach that will be used is a binary logistic regression, which is applied to Hypothesis 1a and Hypothesis 2a. The logistic regression model estimates the probability of an event bounded between 0 and 1 based on the given independent and control variables. The model for Hypothesis 1a is as follows:

Equation 1: $Dealsuccess_{i,t} = \alpha_i + \beta_1 ESGscore_{i,t} + \beta_2 Firmspec_{i,t} + \beta_3 Dealspec_{i,t} + \varepsilon_{i,t}$

Dealsuccess is the deal made between acquirer i and target firm in a year t, measured in 0 and 1, where 1 indicates success and 0 otherwise. ESGscore is the ESG score of acquirer firm i for year t. Firmspec is the annual acquirer firm's financial data that includes the firm's size, leverage ratio, return on assets, and free cash flow. Dealspec is a combination of deal-related control variables, which are deal value and in-border dummy. The variable error term is a leftover factor that addresses imperfections in achieving a complete fit. Hypothesis 2a includes the interaction effect of national cultural distance between the acquirer and target country and the ESG score of the acquirer firm, thus making the model as shown below:

Equation 2: $Dealsuccess_{i,t} = \alpha_i + \beta_1 ESGscore_{i,t} + \beta_2 NCD_{a,r} + \beta_3 ESGscore_{i,t} * NCD_{a,r} + \beta_4 Firmspec_{i,t} + \beta_5 Dealspec_{i,t} + \varepsilon_{i,t}$

The second approach will be a cross-sectional regression analysis, and the model will be based on Cardillo et al.'s regression setup. Hence, the model for Hypothesis 1b is the following:

Equation 3: $Dealtime_{i,t} = \alpha_i + \beta_1 ESGscore_{i,t} + \beta_2 Firmspec_{i,t} + \beta_3 Dealspec_{i,t} + \varepsilon_{i,t}$

All the variables are the same as in the first equation, besides the dependent variable Dealtime, which is calculated as the number of days between the completed and announced date of the subsequent M&A deal for firm i. Likewise, in Hypothesis 2b, a model including an interaction term between the national cultural distance between the acquirer and target country and the ESG score of the acquirer firm will be operated:

Equation 4: $Dealtime_{i,t} = \alpha_i + \beta_1 ESGscore_{i,t} + \beta_2 NCD_{a,r} + \beta_3 ESGscore_{i,t} * NCD_{a,r} + \beta_4 Firmspec_{i,t} + \beta_5 Dealspec_{i,t} + \varepsilon_{i,t}$

(Note: in Equations 2 and 4, $Dealspec_{i,t}$ doesn't include dummy in-border as NCD is only applicable to cross-border deals.)

Chapter 5: Results & Discussion

Before initiating the analysis of regressions, the Breusch-Pagan test to check for heteroskedasticity was conducted, which tests whether the variance of the errors is related to the values of independent variables. The null hypothesis is that the error variances are equal, and if not, a "robust" command is implemented in the regression to treat heteroskedasticity. All cross-sectional regressions were found to have heteroskedasticity problems. In the end, robust errors correction was applied accordingly.

5.1 *Regression for Hypothesis 1a*

The result of logistic regression is presented in Table 2 within columns 1 to 3. Despite the ESG score being significant at the 1% level in column 1, after controlling for firm-specific variables in column 2, the significance disappears while the pseudo-R-square increases by 2%. Further controlling deal-specific variables shifts pseudo-R-squared by 3% while not having an effect on the significance of the ESG score. Extensive analysis of control variables reveals that firm size and deal value in fact decrease the likelihood of deal completion, while the company's free cash flow, leverage, return on assets, and the deal being in-border increase

the probability of success. Thus, with non-significant results, Hypothesis 1a, which implies that the ESG score of the acquirer firm has a positive effect on the likelihood of deal success, cannot be accepted from an academic viewpoint, meaning that there is not enough evidence in the data. The findings are in sharp contrast to Deng et al.'s (2013) and Zheng et al.'s (2022) works. A few explanations are suggested as to why this is the case. The number of not-successful deals in comparison with completed deals is particularly low, with only 61 observations from 1,769 due to the availability of data, which is highly likely due to exclusion bias within the Orbis database. Likewise, the disparities in institutional context and the conditions for collecting data can be justifications for such differences in results. As an example, both previous papers only focused on mergers, which did not include firms from the financial sector.

Table 2: Logistic regression results for Hypothesis 1a.

	(1) Deal success	(2) Deal success	(3) Deal success
ESG score	-1.72***	-0.38	-0.32
	(0.63)	(0.77)	(0.77)
Firm size		-3.49***	-3.02***
		(1.02)	(1.04)
Return on assets		5.78	5.81
		(6.56)	(6.68)
Leverage ratio		2.74**	2.36**
		(1.11)	(1.14)
Free cash flow		12.59	13.46
		(8.38)	(8.30)
Deal value			-4.18***
			(1.11)
In-border dummy			0.06
			(0.28)
Constant	4.38***	0.25	0.03
	(0.43)	(2.44)	(2.50)
Observations	1,769	1,769	1,769
Pseudo R^2	0.02	0.04	0.07

Notes: The table presents logistic regression results for model of Hypothesis 1a. ESG score is independent variable and Deal success is dependent variable. Firm-specific control variables are added in Column 2. Deal-specific control variables are added in Column 3. Pseudo R-squared is how much model explains % change in Deal success. Standard errors in parentheses. $^*p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

5.2 *Regression for Hypothesis 1b*

The outcome of statistical analysis can be seen in Table 3 from columns 1 to 3. Without controlling any firm or deal-related variables, the ESG score of the acquirer firm has a positive but insignificant influence on deal time (Column 1). Nevertheless, after adding firm financial variables, the ESG score variable now has a negative effect on deal time at the 1% significance level, which suggests the model suffered heavy omitted variable bias and can be interpreted as one unit increase in ESG decreasing deal time by 0.04 points. Furthermore, the addition of deal-specific control variables is associated with a 9% increase in R-square while leaving the independent variable as in column 2. All the variables except return on assets and free cash flow are significant at 1%. The interpretation of control variables is in line with the literature, excluding firm size. Hence, with the achieved results, we can accept Hypothesis 1b, which states that ESG negatively influences the duration of M&A deals, which is consistent with Cardillo and Haraheh's (2022) conclusions.

Table 3: Cross-sectional regression results for Hypothesis 1b.

	(1) Deal time	(2) Deal time	(3) Deal time
ESG score	0.01	-0.04***	-0.04***
	(0.01)	(0.01)	(0.01)
Firm size		0.10***	0.06***
		(0.02)	(0.01)
Return on assets		-0.01	-0.02
		(0.06)	(0.06)
Leverage ratio		0.03*	0.05***
		(0.02)	(0.01)
Free cash flow		0.01	0.02
		(0.04)	(0.04)
Deal value			0.51***
			(0.12)
In-border dummy			-0.01***
			(0.00)
Constant	0.05***	0.01	0.03
	(0.01)	(0.02)	(0.02)
Observations	1,708	1,708	1,708
R^2	0.00	0.05	0.13
Adjusted R^2	0.00	0.04	0.13

Notes: The table presents cross-sectional regression results for model of Hypothesis 1b. ESG score is independent variable and Deal time is dependent variable. Firm-specific control variables are added in Column 2. Deal-specific control variables are added in Column 3. R-squared is how much model explains % change in Deal time. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

5.3 *Regression for Hypothesis 2a*

Table 4 contains the results of a logistic regression analysis with an interaction effect between ESG score and the moderating variable, national cultural distance. The first column again depicts a negative and significant effect of the ESG score on the likelihood of deal success when not considering additional variables. The positive, but non-significant coefficient using a two-tailed t-test of the interaction term in column 2 indicates that at high degrees of national cultural distance, greater ESG score leads to an increase in deal success probability. The interpretation can be tricky; hence, Figure 1 is included, which further explains the findings. Moreover, inclusion of control variables results in an increase in R-square by 10%, showing that variables included explain 14% of the change in deal success and the ESG score losing its significance. The positive but insignificant coefficient of interaction term suggests that we don't have enough evidence to support Hypothesis 2a, thus, national cultural distance as a moderator does not play any role in the relationship between the ESG score of the acquirer firm and deal success rate. This statement is not surprising after also not obtaining any proof to accept or reject Hypothesis 1a, which found no relationship between ESG and deal success probability.

Figure 1: Predictive margins of logistic regression with moderator.
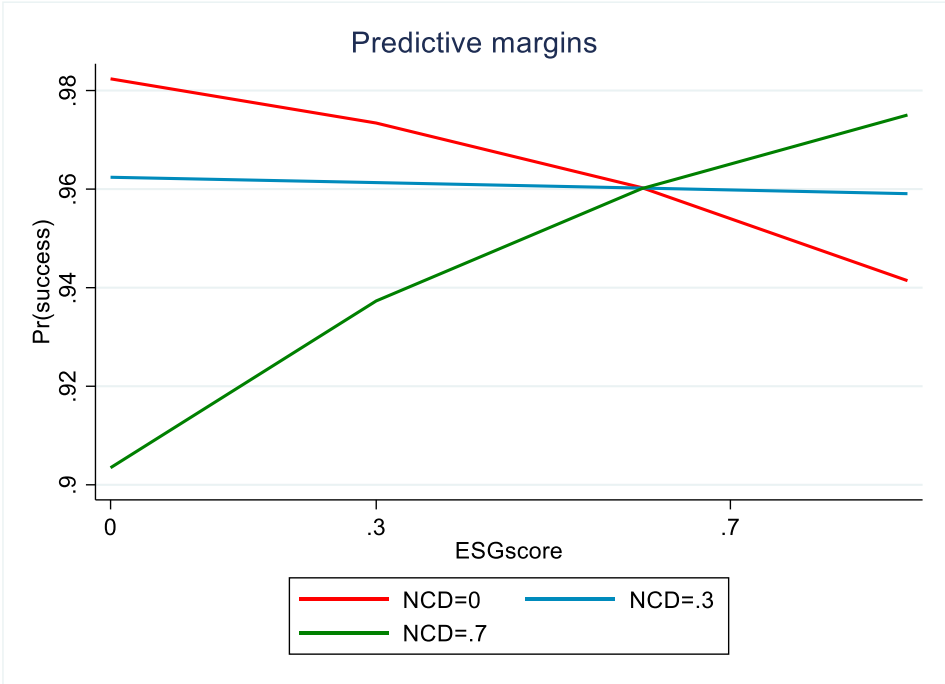
Notes: The figure above depicts the relationship between independent variable ESG score and Deal success at different levels of national cultural distance (NCD). Red line represents NCD=0, Blue line represents NCD=0.3, Green line represents NCD=0.7. NCD is between 0 and 1 due to normalization.

Table 4: Logistic regression results for Hypothesis 2a.

	(1) Deal success	(2) Deal success	(3) Deal success
ESG score	-1.72***	-4.48**	-1.49
	(0.63)	(1.95)	(2.22)
NCD		-3.38	-2.77
		(3.10)	(3.09)
ESG score x NCD		6.72	4.61
		(4.79)	(4.82)
Firm size			-4.68**
			(2.10)
Return on assets			-8.29
			(11.88)
Leverage ratio			3.43
			(2.50)
Free cash flow			73.64**
			(32.80)
Deal value			-6.03***
			(1.77)
Constant	4.38***	5.89***	-6.01
	(0.43)	(1.44)	(7.18)
Observation	1,769	538	538
Pseudo R^2	0.02	0.04	0.14

Notes: The table presents logistic regression results for model of Hypothesis 2a. ESG score is independent variable and Deal success is dependent variable. NCD is moderator variable. Firm-specific and deal-specific control variables are added in Column 3. Pseudo R-squared is how much model explains % change in Deal success. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

5.4 *Regression for Hypothesis 2b*

The final cross-sectional regression consists of the model for Hypothesis 1b with the inclusion of the interaction effect of national cultural distance. The positive and significant at 1% level coefficient of interaction term in column 3 upholds the idea that the effect between ESG score and deal duration is significantly moderated by national cultural distance. This is taken as an increase in national cultural distance reduces the negative role of ESG score on deal time and is again shown in Figure 2, where various levels of NCD are displayed. Interestingly, at extremely high levels of NCD, the negative effect of ESG even disappear. While the presence of both types of control variables in column 3 leads to a 24% increase in R-square, concluding that the final model explains 25% of the variation in the dependent variable. Thus, column 3 presents evidence to accept Hypothesis 2b, which assumed that the higher the national

cultural distance, the less negative the role the ESG score of the acquirer firm plays in affecting M&A deal timing. This also supports the view of Dikova et al. (2010), who predict the positive influence of cultural differences on the national level in M&A deal duration.

Figure 2: Predictive margins of cross-sectional regression with moderator.
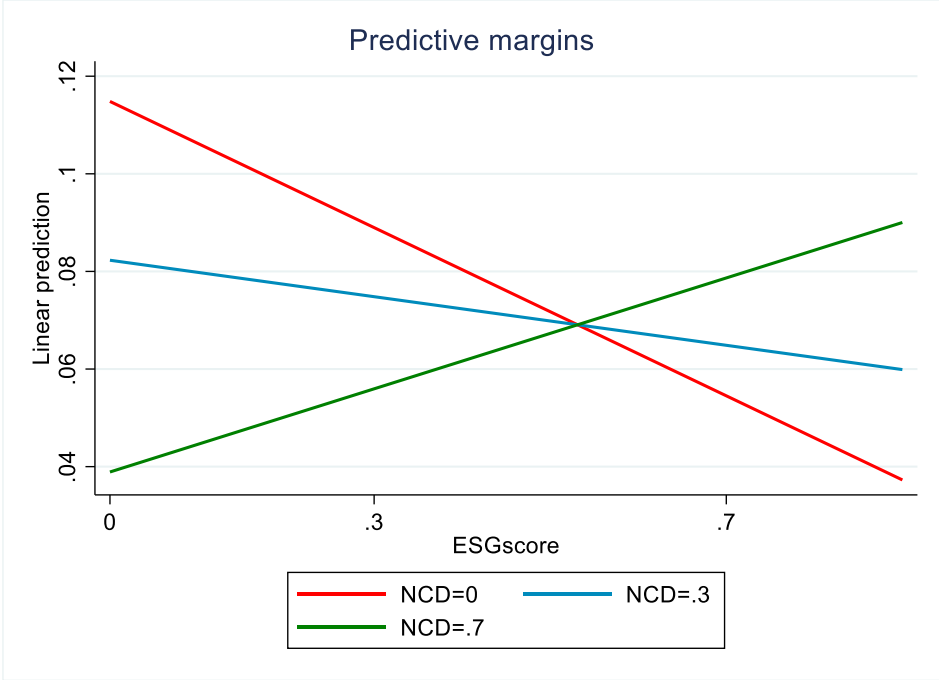
Notes: The figure above depicts the relationship between independent variable ESG score and Deal time at different levels of national cultural distance (NCD). Red line represents NCD=0, Blue line represents NCD=0.3, Green line represents NCD=0.7. NCD is between 0 and 1 due to normalization.

Table 5: Cross-sectional regression results for Hypothesis 2b.

	(1) Deal time	(2) Deal time	(3) Deal time
ESG score	0.01	-0.01	-0.09**
	(0.01)	(0.03)	(0.04)
NCD		-0.10***	-0.11***
		(0.04)	(0.04)
ESG score x NCD		0.17**	0.20***
		(0.07)	(0.07)
Firm size			0.06
			(0.04)
Return on assets			-0.04
			(0.18)
Leverage ratio			-0.01
			(0.04)
Free cash flow			-0.35*
			(0.18)
Deal value			0.92***
			(0.21)
Constant	0.05***	0.07***	0.15**
	(0.01)	(0.02)	(0.07)
Observations	1,708	515	515
R^2	0.00	0.01	0.25
Adjusted R^2	0.00	0.01	0.24

Notes: The table presents cross-sectional regression results for model of Hypothesis 2b. ESG score is independent variable and Deal time is dependent variable. NCD is moderator variable. Firm-specific and deal-specific control variables are added in Column 3. R-squared is how much model explains % change in Deal time. Standard errors in parentheses. $^{*} p < 0.10$, $^{**} p < 0.05$, $^{***} p < 0.01$

5.5 *Robustness tests*

To check the validity of the results, several robustness tests were conducted. Tables of the findings are presented in Appendix C. First, an alternative measure to the ESG score of acquirer firms was introduced. The new variable is the combined ESG score with controversy overlay, where when controversy is present, the score goes down. The regression of all models shows no substantial change in conclusions when using the combined ESG score as an independent variable, and results are similar to those done before. Though the combined ESG score is significant at 5% level instead of 1% in column 6 of Table 6, no change in significance or signs of variables was found besides minor differences in coefficients. Thus, the test supports the robustness of the independent variable.

The second test involves utilizing an altered measure for the moderator variable "national cultural distance". In this instance, the geographical distance when driving between two countries is taken into account. This alternative factor allows us to test the validity of the moderating role of Hofstede's cultural dimensions. Interestingly, the findings of the first column reveal a negative interaction effect where an increase in geographical distance decreases the ESG score's positive effect on success probability, which is in line with Hypothesis 2a. The additional interpretation is shown in Figure 3 (see Appendix B). However, the coefficients are exceptionally insignificant, causing the results to be inconclusive. Moreover, column 2 of Table 8 summarizes results for Hypothesis 2b, and it depicts no significance of interaction term or independent variable while having a positive correlation like in Table 5. These contradictory results leave me with food for thought, and I would suggest implementing other proxies for national cultural distance to further verify the robustness of my model.

An alternative method of regression called the Cox Hazard Model was used to check the validity of regression analysis when estimating the relationship between ESG score and deal duration. The model was used in the works of both Deng et al. (2013) and Cardillo et al. (2022), where, according to Cardillo, the model does not rely on any deal-time assumptions. The findings are displayed in Table 9 (see Appendix C) and are in line with regression analysis results, where the independent variable is significant at the 1% level and the hazard ratio is 1.64, in which a coefficient greater than 1 infers that a higher ESG score leads to a decrease in the deal duration.

Lastly, a new logistic regression analysis which consists of an additional 656 observations with a total of 2,425 observations is proposed in speculation of mitigating the exclusion bias problem. The extra observations do not have an announcement date and are either recorded as "Rumor", "Postponed" or "Pending". Therefore, the previous requirement of solely choosing announced deals is not considered. In this instance, the definition of dependent variable "Deal success" is modified where it is assigned to 1 when deal status is "Completed" and 0 when deal status is recorded as everything else. Thus, the final sample has 1,708 and 717 deals classified as successful and unsuccessful, respectively. Column 3 of Table 10 (see Appendix C) indicates that there is a negative and non-significant relationship between ESG scores and deal success likelihood when controlling for both firm- and deal-specific variables.

Henceforth, still, no conclusions can be made, and it is unknown whether this proposition failed or there are other circumstances causing insignificant correlation.

5.6 *Limitations and improvements*

The major limitation concerning this thesis was the availability of data. As clarified in Chapter 3, the datasets were merged via a unique ISIN identifier, however, thousands of deals obtained from Orbis don't include ISIN codes for acquirer firms, thus making me remove the observations. Furthermore, access to ESG scores is generally very limited for companies based outside of the United States. Out of 10,375 firms existing in the Asset4 dataset, only 2,130 were based in the EU. As Stephan (2021) also states, it would have been noteworthy to use the KLD database where Deng et al. (2013) obtained the CSR scores to see whether there are disparities in results. Additionally, most firms started to report their ESG score only in recent years; hence, numerous deals had to be cut off.

Secondly, my thesis was originally going to concentrate only on mergers as well, but eventually no observations were left either because of the deficiency of ISIN codes or the non-existence of reported ESG scores for the firms. Thus, the final sample comprises acquisitions. Furthermore, the number of deals with "Withdrawn" status, which is 61 out of 1,769, is very concerning and may be a reason behind non-significant findings.

For future research, I would suggest expanding the geographical location of interest. For instance, analyses of the continent of Europe in academic literature are likewise very limited while crucial to touch upon. Another essential element of extending research would be utilizing other databases besides Refinitiv and Orbis. Morningstar's Sustainalytics is an example of an ESG database which may become the leading one in the industry in the coming years.

Chapter 6: Conclusion

This dissertation studies the relationship between Corporate Social Responsibility of acquirer firms, which is proxied by their ESG score, and the likelihood and duration of completing an M&A deal. Previous literature focused on firms from the United States or emerging markets, while surprisingly leaving out European Union firms, which are leaders in sustainable practices. Moreover, it remains unclear whether national cultural differences between deal

parties play any moderating role. Henceforth, the thesis answers the following questions: "How does CSR of acquirer firms relate to the probability of M&A deals being successful in the EU?", "Is there a negative correlation between CSR of acquirer firms and the time for M&A deals to be completed in the EU?" and "Does the cultural difference alter the role of CSR in explaining M&A deals in the EU?".

A sample consisting of 1,769 announced M&A deals from 2007 until 2019 between firms that are both in the European Union and acquirers' corresponding ESG scores for the given year was collected through Orbis M&A, Refinitiv Asset4, and CompuStat for their financial data. The results of logistic regression analyses show no significant support for the idea that CSR increases the probability of deal success, and that national cultural distance moderates the role of CSR. While cross-sectional regression analyses indicate that there is a significant negative effect of CSR on M&A deal duration, national cultural distance is a significant moderator as the negative influence of CSR decreases in higher levels of NCD.

Ultimately, this research contributes to the existing literature by showing that the CSR of acquirer firms has no place in influencing the likelihood of M&A deals being completed in the EU. Although it finds evidence to further support the fact that it takes less time to finish the deal when the acquiring firm is a high CSR scorer. Likewise, if CSR is found to have a positive effect on the duration of an M&A deal, it is potentially due to large cultural disparities between the deal sides.

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Appendix A: Correlation Matrix and Formulas

The formulas used in control variables creation (Chapter 3.4):

Firm size $= \ln(Total\ Assets)$
Leverage ratio $= \dfrac{Total\ Liabilities}{Total\ Assets}$
Return on assets $= \dfrac{IB + XI + DO}{Total\ Assets}$ (here IB is Income Before Extraordinary Items, XI is Extraordinary Items and DO is Discontinued Items)
Free Cash Flow $= Operating\ Activites\ (Cash\ Flow) - Capital\ Expenditures$

Correlation matrix (Chapter 3.6)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Deal success	1.000							
(2) ESG score	-0.066	1.000						
(3) Firm size	-0.099	0.589	1.000					
(4) Leverage ratio	-0.014	0.220	0.527	1.000				
(5) Return on assets	0.033	-0.072	-0.300	-0.333	1.000			
(6) Free cash flow	0.013	0.109	0.058	-0.059	0.019	1.000		
(7) Deal value	-0.169	0.131	0.184	0.035	-0.035	0.009	1.000	
(8) In-border dummy	0.029	-0.152	-0.211	0.002	0.004	-0.061	-0.075	1.000

Notes: The table above represents a correlation matrix for dependent variable Deal success, independent variable ESG score and control variables. Coefficient of 1 indicates perfect positive collinearity, -1 indicates perfect negative collinearity and 0 indicates no collinearity.

Appendix B: Predictive margins figure

Figure 3: Predictive margins of logistic regression with alternative moderator. (Chapter 5.5)
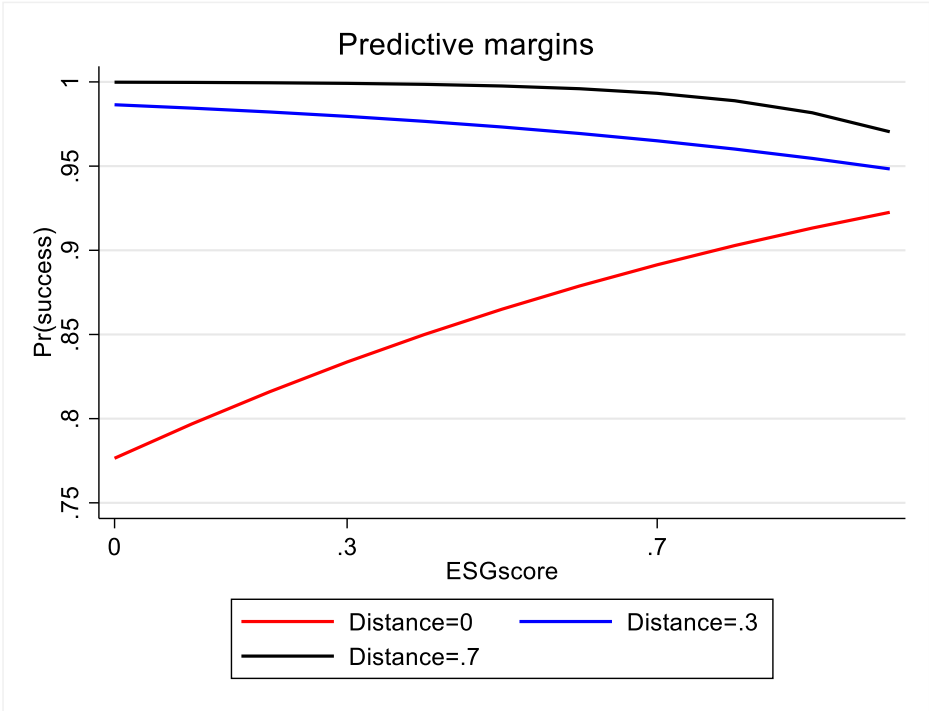
Notes: The figure above depicts the relationship between independent variable ESG score and Deal success at different levels of geographical distance (Distance). Red line represents Distance=0, Blue line represents Distance=0.3, Black line represents Distance=0.7. Distance is between 0 and 1 due to normalization.

Appendix C: Robustness test tables

Table 6: Regression results for Hypothesis 1a and Hypothesis 1b using Combined ESG score as the independent variable. (Chapter 5.5)

	(1) Deal success	(2) Deal success	(3) Deal success	(4) Deal time	(5) Deal time	(6) Deal time
Combined ESG score	-1.67^{***}	-0.70	-0.79	0.01	-0.03^{***}	-0.03^{**}
	(0.65)	(0.71)	(0.72)	(0.01)	(0.01)	(0.01)
Firm size		-3.44^{***}	-2.89^{***}		0.08^{***}	0.04^{***}
		(0.93)	(0.96)		(0.02)	(0.01)
Return on assets		5.96	6.11		-0.02	-0.03
		(6.54)	(6.65)		(0.06)	(0.06)
Leverage ratio		2.72^{**}	2.34^{**}		0.03^{**}	0.06^{***}
		(1.11)	(1.14)		(0.02)	(0.01)
Free cash flow		13.11	14.31^{*}		0.00	0.01
		(8.39)	(8.32)		(0.04)	(0.04)
Deal value			-4.20^{***}			0.51^{***}
			(1.09)			(0.12)
In-border dummy			0.05			-0.01^{***}
			(0.28)			(0.00)
Constant	4.30^{***}	0.26	0.01	0.05^{***}	0.01	0.03
	(0.42)	(2.43)	(2.49)	(0.01)	(0.02)	(0.02)
Observations	1769	1769	1769	1708	1708	1708
R^2				0.00	0.04	0.13
Adjusted R^2				0.00	0.04	0.12
Pseudo R^2	0.01	0.05	0.07			

Notes: The table presents logistic regression results for model of Hypothesis 1a in Columns 1-3 and cross-sectional regression results for model of Hypothesis 1b in Columns 4-6. Combined ESG score is independent variable and Deal success, and Deal time are dependent variables. Firm-specific and deal-specific control variables are added in Columns 3 and 6. Pseudo R-squared is how much model explains % change in Deal success. R-squared is how much model explains % change in Deal time. Standard errors in parentheses. $^{*} p < 0.10$, $^{**} p < 0.05$, $^{***} p < 0.01$

Table 7: Regression results for Hypothesis 2a and Hypothesis 2b using Combined ESG score as the independent variable. (Chapter 5.5)

	(1) Deal success	(2) Deal success	(3) Deal success	(4) Deal time	(5) Deal time	(6) Deal time
Combined ESG score	-1.67***	-4.41**	-2.70	0.01	-0.02	-0.08**
	(0.65)	(1.87)	(2.09)	(0.01)	(0.03)	(0.04)
NCD		-3.18	-3.54		-0.10***	-0.11***
		(3.01)	(3.16)		(0.04)	(0.04)
Combined ESG score x NCD		6.75	5.78		0.18***	0.21***
		(4.78)	(4.93)		(0.07)	(0.07)
Firm size			-4.59**			0.05
			(1.94)			(0.03)
Return on assets			-8.43			-0.06
			(11.85)			(0.18)
Leverage ratio			3.12			-0.01
			(2.53)			(0.04)
Free cash flow			74.09**			-0.35*
			(32.72)			(0.18)
Deal value			-5.62***			0.93***
			(1.78)			(0.21)
Constant	4.30***	5.68***	-5.21	0.05***	0.08***	0.15**
	(0.42)	(1.32)	(7.18)	(0.01)	(0.02)	(0.07)
Observations	1769	538	538	1708	515	515
R^2				0.00	0.02	0.25
Adjusted R^2				0.00	0.01	0.24
Pseudo R^2	0.01	0.04	0.14			

Notes: The table presents logistic regression results for model of Hypothesis 2a in Columns 1-3 and cross-sectional regression results for model of Hypothesis 2b in Columns 4-6. Combined ESG score is independent variable and Deal success, and Deal time are dependent variables. NCD is moderator variable. Firm-specific and deal-specific control variables are added in Columns 3 and 6. Pseudo R-squared is how much model explains % change in Deal success. R-squared is how much model explains % change in Deal time. Standard errors in parentheses. $^* p < 0.10,\ ^{**} p < 0.05,\ ^{***} p < 0.01$

Table 8: Regression results for Hypothesis 2a and Hypothesis 2b using Geographical distance as moderator. (Chapter 5.5)

	(1) Deal success	(2) Deal time
ESG score	1.39	-0.03
	(2.53)	(0.03)
Distance	11.28	-0.04
	(7.50)	(0.04)
ESG score x Distance	-9.67	0.06
	(9.76)	(0.07)
Firm size	-4.04*	0.05
	(2.12)	(0.04)
Return on assets	-5.94	-0.06
	(10.94)	(0.18)
Leverage ratio	3.11	-0.00
	(2.51)	(0.04)
Deal value	-6.94***	0.93***
	(1.92)	(0.22)
Free cash flow	63.08**	-0.27
	(30.40)	(0.18)
Constant	-7.97	0.12
	(6.82)	(0.07)
Observations	543	520
R^2		0.24
Adjusted R^2		0.23
Pseudo R^2	0.18	

Notes: The table presents logistic regression results for model of Hypothesis 2a in Column 1 and cross-sectional regression results for model of Hypothesis 2b in Columns 2. ESG score is independent variable and Deal success, and Deal time are dependent variables. Distance is moderator variable. Firm-specific and deal-specific control variables are present in both columns. Pseudo R-squared is how much model explains % change in Deal success. R-squared is how much model explains % change in Deal time. Standard errors in parentheses. $^{*} p < 0.10$, $^{**} p < 0.05$, $^{***} p < 0.01$

Table 9: Cox Hazard Model results (Chapter 5.5)

	(1) Deal time	(2) Deal time	(3) Deal time
ESG score	1.13	1.56**	1.64***
	(0.17)	(0.29)	(0.31)
Firm size		0.46**	0.86
		(0.12)	(0.25)
Return on assets		0.29	0.69
		(0.43)	(0.92)
Leverage ratio		0.45***	0.25***
		(0.13)	(0.07)
Free cash flow		1.01	0.76
		(1.23)	(0.95)
Deal value			0.01***
			(0.01)
In-border dummy			1.19**
			(0.08)
Observations	897	897	897
R^2			
Adjusted R^2			

Notes: The table presents Cox Hazard Model regression results for model of Hypothesis 1b. ESG score is independent variable and Deal time is dependent variable. Firm-specific control variables are added in Column 2. Deal-specific control variables are added in Column 3. R-squared is how much model explains % change in Deal time. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Regression results for Hypothesis 1a using sample with additional 656 unannounced observations. (Chapter 5.5)

	(1) Deal success	(2) Deal success	(3) Deal success
ESG score	-2.36***	-0.56**	-0.24
	(0.22)	(0.27)	(0.28)
Firm size		-3.84***	-2.79***
		(0.38)	(0.41)
Return on assets		0.53	1.61
		(2.08)	(2.19)
Leverage ratio		1.17**	0.46
		(0.47)	(0.49)
Free cash flow		0.22	0.18
		(1.69)	(1.73)
Deal value			-20.09***
			(2.43)
In-border dummy			0.37***
			(0.10)
Constant	2.33***	2.60***	1.87**
	(0.15)	(0.73)	(0.77)
Observations	2425	2425	2425
Pseudo R^2	0.04	0.09	0.14

Notes: The table presents logistic regression results for model of Hypothesis 1a. ESG score is independent variable and Deal success is dependent variable. Firm-specific control variables are added in Column 2. Deal-specific control variables are added in Column 3. Pseudo R-squared is how much model explains % change in Deal success. Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$