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To what extent does national culture influence the success of cross-border mergers and acquisitions?

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CAR(s)	Cumulative Abnormal Return(s)
CBM&A	Cross-border Mergers and Acquisition
FE	Fixed Effects
IND	Individualism
M&A	Mergers and Acquisition
MAS	Masculinity
PDI	Power Distance
UAI	Uncertainty Avoidance
VIF	Variance Inflator Factor

Abstract

Increasing scientific and practical importance of CBM&A, lack of economic consensus regarding its relationship with culture and a scarcity of research with respect to the individual effect of demarcated aspects of culture and CBM&A, gave rise to this research. The sample consists of 738 deals, with only European firms, and deals announced and completed between 2009 and 2019. Hofstede's dimensions are used as a proxy for national culture and CARs around announcement of the deal as a proxy for CBM&A performance. This research makes a distinction between the relationship of acquirer's national cultural values with CARs, and the distance between acquirer and target firm national cultural values and CARs. The first model show highly significant expected relationships of UAI (negative), PDI (positive), IND (positive), but an unexpected negative sign of MAS. The latter model with cultural differences show results which are insignificant and do not exhibit high effects overall. In addition, regression results does not show substantial evidence that CBM&A experience of acquiring firm moderate the relationship. For different event windows (-1,+1 & -5,+5) than applied in the main model (-2,+2), the same signs seem to hold and results do not substantially deviate.

1 Introduction

"The nine-year, $36 billion "merger" of Chrysler and Daimler-Benz was dissolved in 2007 for a mere $7.4 billion. (...). You had two companies from different countries with different languages and different styles come together yet there were no synergies." (Mateja, 2007). The last couple decades, mergers and acquisitions (M&As) have increased in popularity with cycles and waves over-time. This same pattern applies to cross-border M&As (CBM&As) with a volume, expressed as a percentage of total M&A volume, of 18% in 1985, 45% in 2007, and 22% in 2020 (Erel, Liao, & Weisbach, 2012). CBM&As, a mode for companies to enter foreign markets, is a specific side-step in the regular field of M&A. The underlying intention of engaging in a merger deal is the same for both fields: increase shareholder value by undertaking mergers that create positive net present value. CBM&As could provide greater value than domestic M&A, due to, ceteris paribus, greater potential synergies[1] (Ahern, Daminelli, & Fracassi, 2015). However, several studies indicated that acquisitions mainly destroy shareholder value and are financial failures (Ravenscraft & Scherer, 1987; Tetenbaum, 1999; Eren-rein et al., 2004). Integration costs could devour a significant part of the net merger synergy. These costs could be related to several aspects of CBM&As, for example indirect costs: geographic distance, (operational) compatibility, or direct costs: legal fees, consulting fees etc. On the other hand, a rather abstract and arguably less debated cost of integration is the cultural distance between acquiring and target company.

The effect of culture and cultural differences on CBM&A have been researched increasingly. However, research is still limited and show results which are contradictory: there seems to exists an effect, which has been argued to be positive (Morosini et al. ,1998; Chakrabarti et al. ,2009) as well as negative (Ahern et al., 2015; Lim et al., 2016). From a theoretical perspective, positive effects of cultural differences between firms could be the accessibility to new organizational routines and increasing competitive advantages (Porter, 1987; Morosini et al., 1998). Furthermore, greater cultural distance leads to greater potential synergy benefits, only if it facilitates innovation and opens the path to new problem solving approaches. From a practical perspective, advantages of CBM&A are the possibility to increase revenue and/or decrease cost. Revenue synergy and cost synergy are greater in CBM&A than in domestic M&A, due to the possibility of entering new,

[1] Simply due to a larger pool of potential merger partners.

foreign, markets while distributing efficient systems among (potential) subsidiaries. In contrast, this positive effect of greater cultural distance on potential synergy benefits is also argued to be a negative factor in CBM&A, due to inability of target and acquiring firm to synergize cultural differences (Ahern et al., 2015). Another argument is that integration barriers occur and conflicts among employees arise, both leading to a decrease of post M&A performance (Weber et al., 1996; Cartwright and Cooper, 1993). Furthermore, national cultural and organizational differences are claimed to be the main source of mistrust in (CB)M&A and have held accountable for unsuccessful CBM&A (Buono and Bowditch 1989; Cartwright 1997; Krug and Nigh 2001).

Despite the gain in popularity in the research field of CBM&A and its relation to culture, there is still barely any research on the individual effect of national culture dimensions on the performance of CBM&A. In addition, existing research mainly focuses on the United States, whereas a sample set of European firms could exhibit deviating results. Another important element is that current research contradicts each other and therefore needs a refreshing perspective with regards to the effect of culture on the performance (measured by cumulative abnormal returns, CARs) of CBM&A. This leads to the following research question:

'What is the effect of national culture on the performance of cross-border mergers and acquisitions for European firms?'

As the societal relevance concerns, this research could have practical implications as well as scientific contribution. Firstly, firms engaging in CBM&A could carefully select which countries they deal with, taken into account eventual effects of national culture on cumulative abnormal returns around the announcement period of CBM&A. In addition, investors (shareholders) could benefit from the results in this research. Secondly, scientific contribution relates to the existing gap in literature and the contradicting claims and implications stated in current literature. Furthermore, this research distinguish itself by testing the isolated effect each of national culture dimension on CARs and cultural *distance* (between each dimension of acquiring and target firm) and CARs[2]. This is in contrast with the more often used Kogut and Singh's index (1988), which cumulate all cultural dimension differences between acquirer and the target. In addition, other papers are mainly

[2] The distinction between these two is extremely valuable for the remainder of this research, especially for the hypotheses in chapter 2.

focused on US firms (Steigner and Sutton, 2011) whereas this research will consist of a European sample set. Next to the fact that there are cultural differences between US and Europe, regulations between EU and US also differ greatly, which could lead to deviating results.

This research will empirically approach 738 CBM&A deals between firms in European countries, in which the announcement and completion of the deal has occurred between 01/01/2009 and 31/12/2019. Data is retrieved from Hofstede's Insights (dimension values), Zephyr (deal specific), and Eikon (firm specific).

In order to answer the research question in a proper manner, the thesis has been structured as follows. The theoretical framework about CBM&A and Hofstede's cultural dimensions will be elaborated in chapter two. This chapter will contain the link between these two concepts and corresponding hypotheses. In chapter three, the methodology as well as the variables used in this research will be described. The results will be outlined in the fourth chapter. In the last chapter, the conclusion will be elucidated. Furthermore, this chapter will contain the limitations of the research and the recommendations for further related research.

2 Literature review

Geographical distance and cultural differences, along with more often mentioned strategic incompatibility and purely financial and economic[3] matters, are problematic factors in domestic M&A. However, the first two mentioned problems are from even greater relevance in CBM&A and could lead to integrational complications. According to Johanson and Vahnle (1977) and Lee and Caves (1998) entering foreign markets has appeared to be inherently connected to several risks, such as information asymmetry (Kogut and Singh, 1988) and liability of foreignness[4] (Zaheer, 1995). However, Koerniadi et. al. (2015) argue that there is little evidence that institutional environments and cultural factors are relevant indicators for changes in default risk of US acquiring firms. Integration of different cultures have been researched extensively, with the common denominator being that high levels of cultural distance can impede the quality (success) of the integration (Kogut and Singh, 1988, Hennart and Reddy, 1997, Brouthers 2000).

The relevance of culture within economic and financial research has become increasingly important over the last couple decades. For example, several papers have concluded that culture affects the corporate governance structure of firms within a country (Doidge et al., 2007 and Licht et al., 2005) and international investment flows are affected by a society's culture (Siegel et al., 2011). The concept of culture is hard to define, as it is a complex phenomenon with characteristics which could be approached in several manners. Therefore, the definition in each study should depend on the field of study and correspond with the general outline of the research.

2.1 National culture

According to Hofstede (1980), national culture can be defined as "the collective programming of the mind that distinguishes the members of one group or category of people from another'" (Hofstede, 2001, p. 9). After this publication, Hofstede continued doing research to culture, predominantly focused on quantifying the concept of culture. Two decades later, he complemented his theory with two more dimensions. Hofstede's work is not without criticism however. Blodgett et al (2008), Signorini et al (2009) and McSweeney (2002) argue that his model has some empirical

[3] Problematic valuation, exogenous risks, resource limitations, unexpected economic factors etc.

[4] The cost multinational firms face relative to their domestic competitors when operating in foreign markets. In addition, Zaheer (1995) argue that firms face difficulty in copying organizational practices from other (subsidiary) companies.

and theoretical limitations. However, as Taras et al. (2010) conclude in their comparison of 120+ measurement instruments that Hofstede's model has a close conceptual and empirical correlation with its relevant dimension definitions. Since Hofstede's publication in 1980, various other cultural explanatory theories have been developed, for example Schwartz (1994), Trompenaars (1993), Inglehart (1997) and the GLOBE (House, Hanges, Javidan, Dorfman & Gupta, 2004). However, as confirmed by Benou et. al (2007) and Chui et al (2010), Hofstede's dimensions are most consistent in terms of their approach. Moreover, quantifiability of the model and the limited amount of dimensions[5] validate the applicability of the model for this research.

In this research, the individual relation between the four firstly introduced dimensions and CBM&As will be investigated. Therefore, it is valuable to outline the underlying fundamentals of Hofstede's dimensions and connect these to the field of CBM&A to hypothesize which effect a dimension has on CBM&A performance (measured by CARs). The definition of each dimension as formulated by Hofstede will be given, followed by the implication of this definition in the research area of CBM&A and consequently the hypotheses.

2.1.1 Cultural distance

According to several scholars, cultural differences in general contribute to integrational challenges and incompatibilities in CBM&A (for example, Buono et al., 1985; Jemison & Sitkin, 1986; Cartwright & Price, 2003; Stahl & Voigt, 2008; Dakessian & Feldmann, 2013; Basuil & Datta, 2015) and create barriers while increasing general costs (Weber et al. 1996; Brouthers, 2000; Ahern et al. 2015). Therefore, it could seem obvious for cultural distance to be negatively related to CARs (e.g. hypothesize 2b). Primarily because 'distance' has a negative connotation and implies incongruence. However, cultural distance could arguably be complementarity, and therefore have the opposite effect: a positive relation with CARs (hypothesize 4b). To investigate the relationship between cultural distance and CARs, Kogut and Singh invented an index in their 1988 paper, which is a conventional and often cited research. They define national cultural distance as the difference between cultural norms in acquiring and target country. The index measures the difference between the sum of the four firstly introduced dimensions by Hofstede of acquiring and target company, divided by the number of dimensions. Cultural distance has negative impact on routines, organizational values and creates (knowledge) barriers between acquiring and target countries.

[5] Which is beneficial for cross-cultural research, due to reduced probability of correlation between dimensions.

Furthermore, relationship-building between employees with different cultural values causes frictions and result in efficiency loses (Ahern et al., 2015; Hewstone et al., 2002). Before mentioned factors all result in increasing cost pre-deal and during integration, and will lead to lower (long-term) synergy. Increasing cost throughout the entire M&A process will decrease the performance. Therefore, it can be hypothesized that:

> *H1:There is a negative relationship between acquirer and target firm cumulative cultural distance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.*

Main focus of this research is related to the individual effect of each national cultural dimension. The strength of Hofstede's index is the differentiation among all cultural dimensions, which will be lost by cumulating all levels. Application of cumulative national cultural distance as independent variable in this research will be done predominantly to ensure robustness of the main models.

2.1.2 Uncertainty avoidance

The uncertainty avoidance dimension (UAI) refers to the way a society manages its tolerance towards ambiguity and uncertainty and how is dealt with uncertainty in the future. It measures "the extent to which members of a culture feel threatened by uncertain or unknown situations" (Hofstede 2001, p. 167). High uncertainty avoidance often equals strict laws and rules, which is intended to avoid unpredictable situations (risk avoidance). Examples of countries with high uncertainty avoidance levels are Portugal, Belgium, Poland, France and Spain. People fear failure, pursue job security and tend to monitor and control over long periods. In contrast, countries with relatively low uncertainty avoidance levels (Denmark, Sweden, United Kingdom and the Netherlands), tend to adjust to changing situations, are creative, and accept deviating behavior while being risk tolerant.

In this research, the definition Frijns et al. (2013) grant to uncertainty avoidance will be used to develop the hypothesize of this research. They argue that uncertainty avoidance can be used as a measure of risk tolerance, which exists of two components: risk perception and risk aversion. Risk perception implicate that the same level of risk aversion could be perceived differently among

people and respectively firms[6]. The use of uncertainty avoidance as a proxy for risk tolerance in their model is in line with the empirical studies of Aktas et al. (2009), Beugelsdijk and Frijns (2010) and Anderson et al. (2011). In their model, Frijns et al. (2013) investigate the relationship between expected CARs (a proxy for 'net synergies') and risk tolerance (a proxy for 'uncertainty avoidance'). Their results show that uncertainty avoidance has a strong negative relationship with CARs, however, for a deviating sample period (1990-2008) and containing mostly US acquisitions. They argue that less risk tolerant CEOs require higher returns and that relatively large deals are more sensitive for uncertainty avoidant factors. The latter indicates that larger takeovers require a higher risk premium. They add several control variables, for example relative firm size, relative deal size, industry relatedness etc., which also will be used in this paper. In addition, they argue that countries with high uncertainty avoidance more often engage in cross-border diversifying take overs, due to earlier mentioned diversification benefits and overall risk reduction. Furthermore, they conclude that countries with a high degree of uncertainty avoidance perceive investments riskier. Furthermore, they extend their research and argue that CEOs from firms in high uncertainty avoiding countries are less eager to engage in CBM&A. Hall and Murphy (2002), and May (1995) agree with Frijns et al. (2013) that a CEO would only engage in an acquisition if the net synergy is large enough, taking into account that the CEO is less risk tolerant (uncertainty avoidant)[7].

Bakher (2018) argue in his paper related to national cultural distance that UAI is the most problematic dimension. However, his results show inconclusive relationships between UAI and integration success (slightly insignificant positive), and UAI and synergy success (slightly insignificant negative). Nevertheless, the profitability success relation with UAI differences between acquirer and target company show a negative sign. Shenkar (2001) agrees with Bakher that cultural distance of UAI in international business can be perceived as most problematic, which is based on arguments of Hofstede himself. In addition, Kogut and Singh (1988) as well agree and therefore treat uncertainty avoidance as individual variable in their commonly cited paper. Underlying reason for UAI distance to be the most troublesome is based on differential tolerances of acquirer and target firm towards: formalization and risk. With formalization is meant "the extent to which an organization's policies, procedures, job descriptions and rules are written and explicitly

[6] Assuming that individuals tend to conform to dominant values and behavior of a group (Hilary and Hui, 2009), it can be extrapolated toward firms.

[7] However, managerial hubris should be taken into account, as Goergen and Renneboog (2004) estimate that 1/3rd of large takeovers this hubris plays a role.

articulated" (Robbins, 2011). Frictions between acquirer and target arise from differences in rules and regulations, which are more loose in less uncertainty avoidant countries and vice versa. Therefore, it can be hypothesized that:

> *H2a. There is a negative relationship between acquirer's uncertainty avoidance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.*
> *H2b. There is a negative relationship between acquirer and target firm absolute distance in uncertainty avoidance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.*

Important to notice is that for hypothesis 2b, the absolute distance will be used. The underlying reason is that, indifferent from whether the difference is positive (acquirer has higher score than target) or negative (acquirer has lower score than target), the theoretical arguments for the relationship remain the same.

2.1.3 Power distance

According to Hofstede, power distance (PDI) can be defined as "the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally" (Hofstede, 1981). Cultures with high PDI index exhibit vertical social relationship structures (vs. horizontal in low PDI countries), are more formal (vs. informal in low PDI countries) and have more powerful authorities. However, the dominant role of the authority in high PDI countries and the hierarchical order are accepted by the society. Furthermore, decisions are made autocratically and due to little resistance of lower level employees, these decisions will be anchored and implemented faster (Khatri, 2009). In these societies an unequal distribution of power is accepted and people expect to be told how to behave. Examples of countries with high PDI index score are Slovakia, Romania, Croatia, Ukraine and Iceland. In contrast, cultures with low PDI tend to minimize identity[8] differences and focuses on diminishing such gaps, for example on career development level. Employees do not easily accept inequalities and are more autonomous than employees in high PDI countries. Due to horizontal relationships, there is a closer relationship

[8] Such as gender, status or age.

between employees and management. Examples of low PDI countries are Austria, Netherlands, United Kingdom, Germany, and Nordic countries.

According to Bakher (2018), firms in countries with a high PDI index are able to make decisions more rapidly due to autocratic decision making on management level, without consideration of subordinates. However, high PDI difference between acquiring and target company leads to mixed result: on the one hand, it provides synergy success because decisions on strategic and managerial level are made more rapidly[9]. On the other hand it has a negative relationship with the M&A performance. The latter is foremostly caused by centralism characterises of high PDI countries, which may lead to ineffective integration and conflict on managerial and-employee level. In addition, Brock (2005) argues that both integrational success and, subsequently, performance of CBM&A is negatively related to PDI difference between acquiring and target firm. The underlying arguments for his results are in line with Khatri's (2009) theoretical view on PDI differences within organisations. Khatri's view captures the communicational, hierarchical, organisational, and behavioral differences between firms in high and low PDI countries. Furthermore, his view is in line with Cartwright & Price's (2003) conclusion, who argue that integrational problems (due to cultural dissimilarities) will result in higher acquisitions costs and worsen the M&A performance. Therefore, it can be hypothesized that:

> *H3a. There is a positive relationship between acquirer's power distance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.*
> *H3b. There is a negative relationship between acquirer and target firm <u>absolute</u> distance in power distance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.*

Important to notice is that for hypothesis 3b, the absolute distance will be used. The underlying reason is that, indifferent from whether the difference is positive (acquirer has higher score than target) or negative (acquirer has lower score than target), the theoretical arguments for the relationship remain the same.

[9] Top management is able to make decisions without agreement on lower level, which fasten the decision making process on for example marketing and R&D level. These factors may contribute to realise high synergy potential (Bakher, 2018).

2.1.4 Masculinity vs femininity

Hofstede defines masculinity as "a preference in society for achievement, heroism, assertiveness and material rewards as well as recognition for success" while femininity represents "a preference for cooperation, modesty, caring for the weak and quality of life" (Hofstede, 1991, p. 195). In a masculine society, there is more polarization with respect to gender values. In reverse, a more feminine culture has less visible boundaries between male and female. Respectively, one is more egocentric and performance-driven, whereas the other is more directed towards the society as a whole and solidarity. Examples of masculine countries are United Kingdom, Germany and Poland, while Nordic countries, such as Sweden, the Netherlands and Denmark tend to be more feminine. The latter pay attention to social wellbeing and prefer negotiation over using forces. In addition, firms in feminine countries tend to emphasize the morally accepted and environmental topics, such as CSR, wage gaps, women quota etc. Furthermore, several papers conclude that in general male are more risk seeking than female are.

There is barely any research on the relation between masculinity and (CB)M&A performance, as already pointed out in 2015 by Tienari et al. However, Bazel-Shoham et al. (2020) argue international M&A activity (CBM&A) is reduced when the board of a firm has female presence. Furthermore, Shenkar and Zeira (1992) found in their research related to role conflict and role ambiguity of CEO in joint ventures, that role ambiguity "was lower when (…) the Power Distance and masculinity vs femininity gap between parents[10] were lower, and when the individualism vs collectivism and uncertainty avoidance gaps were higher." In addition, Bakher (2018) found that high differences in masculinity leads to integration success and synergy success. The underlying assumption is that a higher dispersion in this dimension will result in lower negotiation costs, easier agreement on M&A deals (with external parties) and less debate on managerial level. For example, firms in highly masculine countries encourage cultures with the opposite value (low MAS index) to work harder and more efficient. Moreover, they are more assertive, competitive, and task and growth driven. Furthermore, during integration stage, the planning process in firms from masculine countries tend to be top-down and programmed, which favourably influence the integration stage and result in synergy success (Bakher, 2018). Therefore, it can be hypothesized that:

[10] Parents in this quotation refers to 'parent firms'.

H4a. There is a positive relationship between acquirer's masculinity and cumulative abnormal returns over a five-day period around the announcement of CBM&A.

H4b. There is a positive relationship between acquirer and target firm distance in masculinity and cumulative abnormal returns over a five-day period around the announcement of CBM&A.

Important to notice is that for hypothesis H4b, distance could be positive (acquirer has higher score than target) as well as negative (acquirer has lower score than target). The underlying reason is that the theoretical arguments for positive and negative distance differ, as well as the anticipated relationship. As extensively described in previous paragraph, it is expected that if acquirer's masculinity score is high and target's score is low (positive distance), there is expected to be a positive relationship with CARs. Same holds the other way around: if there is a negative distance (acquirer's score is lower than target's score), there is expected to be a negative relationship with CARs.

2.1.5 Individualism vs collectivism

Hofstede describes these dimensions as "the extent to which individuals are integrated into groups" (Hofstede, 1991; p. 51) and the "degree to which people in a society emphasize the role of the individual versus the role of a group" (Hofstede, 1980, p. 45). In individualistic societies, people take care of themselves and their family only and view "persons as separate entities, clearly distinguishable from their social milieus" (Bochner, 1994, p. 274). Important characteristics of people in an individualistic society are that they appraise themselves as autonomous, self-contained, and emphasize their right to personal opinions and privacy (Hofstede, 2011). Examples of countries with a relatively high score on individualism are West-European countries, such as the Netherlands and United Kingdom. In contrast to individualistic countries, collectivistic societies emphasize group interest and expect individuals to sacrifice personal interest for the greater good. Examples of countries with a relatively low score (so highly collectivistic) are East-and South-European countries, such as Portugal and Slovenia.

Firms located in collectivistic countries tend to have more difficulties on reaching a M&A proposal agreement than firms in a country with individualistic culture. In addition, the degree of individualism is related to risk-willingness: higher individualism score indicates that there is tolerance towards risk exposure (Chan and Chueng, 2016). People in individualistic countries tend

to be extrovert, which is considered to be related to investor (over)confidence, excessive trading and risk taking (Costa & McCrea, 1992; Chui, Titman & Wei, 2010; Chui et al., 2010). Ahern et al. (2015) argue that greater cultural distance of individualism in CBM&A leads to lower combined announcement returns. The underlying reason is that it introduces costly frictions and efficiency loses, for example: collectivistic employees prefer not to co-operate with individualistic people, mainly due to deviating goals, norms and values. Furthermore, the conflict of interest between stakeholders of acquiring and target firm in a collectivistic culture result in higher transaction cost throughout the negotiation process (Chen et al., 2002). Taken into account these perspectives, it could be argued that acquirers in highly individualistic countries have a positive relation with CARs around the announcement period of CBM&A. However, the cultural distance on the individualism score is negatively related to abnormal returns around announcement date. Therefore, it can be hypothesized that:

> *H5a. There is a positive relationship between acquirer's individualism and cumulative abnormal returns over a five-day period around the announcement of CBM&A.*
> *H5b. There is a negative relationship between acquirer and target firm absolute distance in individualism and cumulative abnormal returns over a five-day period around the announcement of CBM&A.*

Important to notice is that for hypothesis 5b, the absolute distance will be used. The underlying reason is that, indifferent from whether the difference is positive (acquirer has higher score than target) or negative (acquirer has lower score than target), the theoretical arguments regarding the relationship remain the same.

3 Methodology

In this research, the relation between four national culture dimensions (uncertainty avoidance, power distance, individualism vs collectivism and masculinity vs femininity) and CARs (as a proxy for the success of CBM&As performance) will be investigated.

This chapter will present the data and methodology used to test the hypotheses stated in previous chapter. Firstly, a description of where the data has been collected will be provided, followed by an overview of the sample selection and criteria applied to establish a representative sample set. Furthermore, the sources used to retrieve the variables, a short measurement notice and the implication of each variable for this research. Lastly, the applied model, sample set quality checks and robustness tests will be described.

3.1 Data source

The research will be conducted using Zephyr for all information on M&A deals, for example deal value and country codes of acquiring and target firm. In addition, the database Eikon will be used to obtain the returns of the acquiring/target firm and the market indices as bench mark. Next to that, Hofstede's cultural dimensions scores are available online and can be found via Hofstede's Insight (Hofstede-insights, 2010)[11].

3.2 Sample selection

The empirical tests are based on a sample of cross-border mergers and acquisitions that are announced and completed between the 1st of January 2009 and 31th of December 2019. The main reason for choosing this time frame is to reduce the chance of exogenous and macro-economic shocks which could bias the results. Therefore, the start of the sample set will be after the sixth merger wave[12], in which credit was easily accessible and acquirers tend to overpay for target firms (DePamphilis, 2019). The end date of the sample set will be 2019, to ensure availability of all data and due to the rise of a worldwide pandemic (which resulted in a stock market crash in early 2020).

[11] For a fundamental clarification of each score, the underlying rationale and the corresponding implications, Hofstede's papers should be considered (Hofstede 1984).

[12] Approximately from 2003 until 2008.

After applying several criteria, the sample set consist of 792 cross-border deals. The criteria applied are as follows:

1. Acquiring as well as target company need to be in Europe and, needless to say, are based in different countries.
2. Deal value should be more than EUR 1 million.
3. Only mergers and acquisitions which are announced and have been finished within the chosen time window (01/01/2009 until 31/12/2019) are included in the sample set.
4. The acquirer must be listed to ensure availability of stock data.
5. Both acquirer's and target's nation are known and national culture dimension scores are available at Hofstede's insights.
6. Firms operating in the financial industry are removed from the sample set, due to different M&A motives (Dymski, 2002)[13].

A detailed overview of all steps and the remaining number of deals after each step can be found in appendix III.

3.3 Variables

An overview of all variables can be found in appendix II.

3.3.1 Dependent variable

The dependent variable defines the 'performance of cross-border M&A' by looking at abnormal returns around announcement and completion day. Therefore, two dependent variables will be introduced: the cumulative abnormal returns over a five day period around announcement date (2 days before and 2 days after announcement date: -2, +2) and the cumulative abnormal returns over a eleven day period around announcement date [-5, +5]. Creditability of CAR in the research field of M&A is high, which can be seen by ubiquitous application of this instrument in scientific papers. The abnormal return will be calculated by using market adjusted model:

$$AR_{it} = R_{it} - R_{mt}$$

EQUATION 1: ABNORMAL RETURN

[13] Furthermore, firms operating in the financial industry (for example commercial banks) have fundamentally different structures and governmental and legislative obligations than 'regular' firms.

AR_{it} is the abnormal return of firm i on day t, R_{it} explains the return of firm i on day t and R_{mt} is the acquirer market index return. Abnormal return basically defines the differences between the expected return (market model) and actual return (index) of a stock. By adding all abnormal returns for the desired time-window, the CARs can be calculated and used as a proxy for M&A performance. The market model will contain a timeframe of 200 trading days before merger/acquisition announcement date and ending 25 trading days before announcement date, which will be the estimation window (-200, -25). By ending 25 trading days before announcement date, the chance of including unwilling effects of the merger/acquisitions will be reduced. The same applies for the starting point at 200 days before announcement. The equation will be as follows:

$$R_{it} = a_i + B_i * R_{mt} + e_{it}$$

EQUATION 2: ESTIMATION WINDOW

To calculate the CARs around the announcement date, a five-day period has been chosen for the event window [-2, +2]:

$$\text{CARF}i_{(-2,2)} = \sum_{t=-2}^{t=2} AR_{it}$$

EQUATION 3: CARF [-2, +2]

The second dependent variable will also be around announcement date, however, another event window [-5, +5]:

$$\text{CARE}i_{(-5,5)} = \sum_{t=-5}^{t=5} AR_{it}$$

EQUATION 4: CARE [-5, +5]

The chosen event-window-period is in line with the time frame used in research of, among others, Boateng et al. (2019), Rahahleh & Wei (2013), and Chatterjee et al. (1992).

3.3.2 Independent variables

National cultural dimensions (*PDI, IND, MAS and UAI*) are the most important independent variables in this research. These variables are intended to provide clarity on the 'a' part of the hypotheses[14]. As earlier stated, culture is a hard concept to quantify, however, Hofstede's national culture dimensions have a close conceptual correlation with its definitions. For the definition of each cultural dimensions and its implication in the research field of CBM&A, chapter 2 has to be considered. Each dimension is included as an absolute value. Furthermore, an independent variable for each dimension has been introduced (*diff_PDI, diff_IND, diff_MAS, diff_UAI*) which explains the difference between the acquirer's and target's national culture (measured by the differences between their scores on each dimension). These variables are intended to provide clarity on the 'b' part of the hypotheses[15]. To summarize, these independent variables capture the isolated effect on the CARs around announcement date of the 1) dimension scores of acquiring firm and 2) differences on dimension scores between acquiring and target firm.

This is in contrast with Kogut and Singh's (1988) index, which explains the difference between the sum of all dimensions of acquiring and target firm, and corrects for differences in the variance of each dimension:

$$CD_j = \sum_{i=1}^{4} \{(I_{ij} - I_{iu})^2 / V_i\}/4$$

Equation 5: Cumulative national cultural dimension differences formula

3.3.3 Control variables

Multiple control variables are included in the model to reduce the chance of omitting variables that influence the effect of national culture on CBM&A performance.

Firm size could influence the relationship between culture and CAR, because it has been concluded often in previous research that larger acquiring firms tend to make worse investment decisions than smaller firms (Moeller et al., 2004, Frijns et al., 2013). Therefore, a negative

[14] With 'a' part is meant for example hypothesize 1a) There is a positive relationship between uncertainty avoidance and cumulative abnormal returns over a five-day period around the announcement of CBM&.

[15] With 'b' part is meant for example hypothesize 1b) There is a negative relationship between distance in uncertainty avoidance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.

relationship is expected between CARs and relative firm size. The latter is measured by the logarithm of the market value of total assets from acquiring firm in the year before the M&A announcement.

Serial acquiring firm is included as a dummy variable, which is in line with research by Aktas et al. (2009) and Frijns et al. (2013). CEOs and management of firms which engaged in prior acquisitions, have knowledge about the distribution of outcomes. Their skills of identifying target companies with great synergy potential increases. Therefore, a positive relationship is expected between serial acquiring firms and CARs. Firms which have acquired more than one firm during the sample period have a value of 1.

Furthermore, *deal value* is included in the model, because the larger the deal value, the more likely the market is to react positively (Frijns et al., 2013). This variable is measured by the logarithm of the deal value in thousands of euros.

Full ownership of acquirer is an important control variable, because 100% ownership of the acquirer over the target has often been stated as the most successful strategy. Slangen (2006) concluded that partial takeovers could result in conflicts on management level and increased likelihood of unparallel strategical visions. Therefore, a positive relationship is expected between full ownership of acquirer and CARs.

Cash method of payment is a dummy variable with a value of 1 if the transaction was fully financed with cash and 0 otherwise. Many research show that CBM&A which are paid in cash result in more confidence at the shareholder. Therefore, a positive relationship with CARs is expected when a CBM&A has been financed with cash. In opposite, when a CBM&A is *financed with equity* it is expected that there will be a negative relation with CARs. Mainly due to negatively aspects this method of payment has: it decreases shareholder values and therefore is perceived negatively by the market (Asquith et al., 1990).

Industry relatedness is a control variable with a value of 1 if the acquiring company and target company are in the same industry (based on SIC code). Operating in a different industry will give a value of 0 and it is expected that this unrelatedness will have a negative effect on the CARs (vice versa, CARs are positively related to industry relatedness). When firms of different industries engage in M&A markets may react negatively (Zhang et al., 2011).

3.3.4 Moderating variables

This research will use the number of deals (experience of acquirer) during the sample period as moderating variable. In the models, an interaction term between the independent variables containing cultural differences[16] and previously mentioned number of deals will be formed. The coefficients represent the value of the main effects when one of the variables has no value (zero). However, as a country always has a certain value on their dimension score (and there is always some difference between two countries), this wouldn't be reliable. Therefore, we have to center all interaction terms around the mean, so that the value of the other variable cannot be zero.

3.4 Method

To establish the relationship between the performance of CBM&A and national culture, an ordinary least squares (OLS) multiple regression model will be applied. The dependent variable is not a dichotomous variable and, therefore, a logistic regression would not be appropriate. Furthermore, the sample shows that several firms have announced and completed two or more deals during the researched period. Therefore, a pooled cross-sectional model would be objectionable due to an unbalanced panel. When applying an OLS regression, it is important to control for the key assumptions of this method. If these assumptions are not properly checked, results could be biased and incorrect. Certain problematic factors in the model are already eliminated on forehand, for example the predicted kurtosis and skewness of firm size and deal value. These issues are solved by taking the natural logarithm of these two variables. The predicted kurtosis and skewness are confirmed both numerically and graphically (histograms). In addition, the variables PDI and UAI appeared to be not normally distributed but rather heavily tailed. After scaling it logarithmic, the kurtosis value and skewness both were more appropriate for the model. Although the dependent variables CARF and CARE are slightly above skewness thresholds but far above kurtosis threshold[17], it is disadvantageous to transform them. Firstly, negative CARs will result in missing observations when scaling it logarithmic, and secondly, the quadratic term does not improve kurtosis and skewness values. Lastly, interpretation of the relation will be less reliable when using the natural logarithm of variables.

[16] On individual cultural dimension level (so for each dimension) as well as cumulative: so for diff_PDI, diff_UAI etc.

[17] Assuming threshold of -2 and +2 for skewness and -7 and +7 for kurtosis (Hair et al., 2010; Bryne, 2010).

To identify whether the sample set contains any outliers and/or influential cases, various test have been conducted. Outliers and influential cases will be removed from the data set. Studentized residuals (with critical values of >3 in absolute value) and partial plots are used as instruments to check for possible outliers, and Cook's Distance and DfFit for other outliers and influential observations. For the latter two tests, the most conventional critical values are applied: 4/*n* for Cook's Distance and $2\,x\,\sqrt{\frac{p}{n}}$ for DfFit. Furthermore, each model has to be checked for heteroskedasticity. If the error terms appears to be heteroskedastic, one of the OLS assumptions is violated and the model will manifest biased results. Therefore, a Breusch-Pagan test is applied which indicates whether there is heteroscedasticity present. In appendix VI the results of this test can be found, which show a significant result: this means that there is heteroscedasticity. Therefore, we have to apply robust standard errors. In addition, after every regression a inflation factor test (VIF)-test will be applied to check whether there is multicollinearity between variables. The threshold for the VIF-test in this research is 10, which is in line with general research. Research of Chakrabarti et al. (2009) showed that clustering at acquirer country level is the most appropriate way to deal with data sets like this. The underlying reason is that recurring firms (multiple acquisitions) can bias the model due to correlation on various levels. All before mentioned steps will be conducted for each model, to increase reliability of the results which will be described in the next chapter.

The formulas for the isolated relation between each national cultural dimension of acquiring firm and CARs around announcement are as follows:

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 PDI_i$$

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 IND_i$$

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 MAS_i$$

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 UAI_i$$

EQUATION 6: INDIVIDUAL RELATIONSHIP BETWEEN EACH NATIONAL CULTURAL DIMENSIONS AND CARS.

The formulas for the isolated effect of the difference between each national cultural dimensions of acquiring and target firm on CARs around announcement are as follows:

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 diff\_PDI_i + \beta_9 PDIdeals$$

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 diff\_IND_i + \beta_9 INDdeals$$

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 diff\_MAS_i + \beta_9 MASdeals$$

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 diff\_UAI_i + \beta_9 UAIdeals$$

EQUATION 7: INDIVIDUAL RELATIONSHIP BETWEEN EACH NATIONAL CULTURAL DIFFERENCES AND CARS.

To ensure robustness of the model, several checks will be applied. Instead of using a 5 day period around the announcement of CBM&A [-2,+2], a second dependent variable is introduced which uses an event window of 11 days around announcement of CBM&A [-5,+5]. The formula for this robustness check will look exactly the same as above equations, with the only difference being the event window. Furthermore, Kogut and Singhs index is also used as a robustness test for the individual effect of each cultural dimension. Their index captures the sum of Hofstede's firstly introduced dimensions and divide it by the amount of dimensions:

$$\text{CARF}i_{(-2,2)} = \beta_0 + \beta_1 logFS_i + \beta_2 SAF_i + \beta_3 logDV_i + \beta_4 FOA_i + \beta_5 CASH_i + \beta_6 SHARES_i + \beta_7 IDR_i + \beta_8 diff\_total_i$$

EQUATION 8: CUMULATIVE DIFFERENCES OF ALL NATIONAL CULTURAL DIMENSIONS AND CARS.

4 Results

In this chapter, all results obtained with stata will be described. Firstly, the descriptive statistics will show the number of observations, mean, standard deviation, minimum, and maximum of all variables used in this research. The data shows all variables and corresponding values after cleaning the data and transforming variables where necessary. Secondly, chapter 4.2 will provide a correlation matrix of all variables and its significance. Furthermore, in chapter 4.3 the hypothesis stated in chapter 2 will be tested. Each cultural dimension and respectively hypothesis has its own subchapter. Lastly, chapter 4.4 will delineate whether the model is robust or indicate deviating results with the regular model.

4.1 Data description

The table below shows the descriptive statistics for all variables used in this research. The sample set contains 738 CBM&A deals for the period 2009-2019. Although all firms are based in Europe, there appears to be great variance among and between firms regarding their national cultural values. For example, the most masculine acquirer has a score of 88, while the lowest has a score of 5. Another example is the difference between acquirer and target firm with respect to their uncertainty avoidance (*diff_UAI*) score: a difference of 77. In addition, the difference on *PDI*, *IND* and *UAI* scores show a minimum of 0, while the difference between acquirer and target on *MAS* score is -74. As earlier explained, the first 3 variables capture the absolute distance, while the latter captures the relative difference between acquirer and target. For the variables measured in absolute distance it is indifferent whether the difference is positive of negative: the distance itself defines the expected relationship. For *diff_MAS*, the hypothesis is built on papers which argue that higher masculinity difference (positive: acquirer is more masculine than target) is positively related to CARs.

The average cumulative abnormal returns five days around announcement (*CARF*) is 2.37%, with 89.57% being the greatest and -25.79% being the lowest abnormal stock returns. Investors appear to react approximately to same over time, as the 3 days window average CAR (*cart*) is 2.15% and for the eleven days window (*care*) this is 2%. A noteworthy difference is the standard deviation of the eleven day period, being 8.46, while it is 7.24 for the five day period. This shows that there is a positive effect on stock returns around announcement of CBM&A. Another

interesting figure to notice is that 47.3% of the data set has announced and completed multiple deals within the sample period. This could indicate that the European CBM&A market consists of relatively mature firms. Furthermore, the national cultural dimension values of acquirer and target are approximately the same on average.

Variable	Obs.	Mean	St. Dev.	Min.	Max.
logPDI_a	738	3.644	0.318	2.398	4.5
IND_a	738	73.560	10.810	22	89
MAS_a	738	45.640	25.100	5	88
logUAI_a	738	3.876	0.431	3.135	4.595
PDI_t	738	41.710	15.130	11	100
IND_t	738	70.940	12.490	22	89
MAS_t	738	47.120	24.260	5	100
UAI_t	738	58.930	21.250	23	100
diff_PDI	738	13.230	12.930	0	59
diff_IND	738	13.450	10.040	0	67
diff_MAS	738	-1.480	30.840	-74	65
diff_UAI	738	24.140	17.310	0	77
diff_total	738	10.840	8.305	0	39.25
cash	738	0.503	0.500	0	1
shares	738	0.176	0.381	0	1
idr	738	0.714	0.452	0	1
foa	738	0.812	0.391	0	1
cart	738	2.147	7.435	-22.58	126.30
carf	738	2.366	7.236	-25.79	89.57
care	738	1.995	8.459	-28.88	72.12
saf	738	0.473	0.500	0	1
PDIdeals	738	-0.589	19.320	-78.51	185.7
INDdeals	738	0.637	14.610	-86.33	72.06
MASdeals	738	0.263	47.890	-174.7	447.2
UAIdeals	738	1.764	29.720	-167.4	186.2
CDdeals	738	0.401	11.960	-52.45	79.72
deals	738	2.065	1.643	1	9
logsize	738	14.040	2.420	6.131	22.33
logdealv	738	10.740	2.177	6.908	17.25

TABLE 1: DESCRIPTIVE STATISTICS

Despite the fact that target national cultural dimension values (*PDI_t, IND_t, MAS_t, UAI_t*) are not directly[18] used in the regression models, they are included in the descriptive statistics. The

[18] Needless to say, they are used indirectly to calculate the difference between acquirer and target firm.

main reason for doing so is to check whether there are (dis)similarities in statistics of each dimension between acquirer and target.

4.2 Correlation

The correlation matrix in appendix VII shows the correlation between all variables used in this research[19]. A correlation of 0.5 between variables could be perceived as fallacious, as multicollinearity between independent variables could result in less reliable regressions results. Most variables do not correlate and therefore do not bias the model. However, there are several values above the earlier mentioned threshold, for example (*11*) and (*3*): it is obvious that the difference between acquirer and target on the masculinity dimensions (*11*) is correlated with acquirer's masculinity score (*3*). However, these variables are never applied in the same model and, therefore, this problematic correlation could be ignored completely. An interesting point of attention is the correlation between UAI and PDI on several levels: between acquirer (*4*) and (*1*), target (*8*) and (*5*) as well as in the national cultural differences (*12*) and (*9*). Despite the fact that the main regression does not include multiple dimensions in 1 model, this could be problematic when clustering all dimensions in 1 model[20]. An explanation for this correlation could be that the high UAI countries often have high PDI scores. Hofstede argues in his research 'Dimensionaliazing Cultures: The Hofstede Model in Contact' (2011), that people in less UAI countries are more tolerant towards deviating opinions and try to have less regulation and rules. These characterises have much in common with low PDI countries. However, as concluded in chapter 2, Hofstede's dimensions are considered as the most valuable quantification of national culture and previously mentioned information does not change the applicability for this research. Another (expected) corelation is visible between deal value (*logdealv*) and firm size (*logsize*). Main reason for the presence of this relationship could easily be explained by the fact that, in general, firms with larger assets have more access to capital than smaller firms.

The variance inflator factor (VIF) test makes it possible to check whether multicollinearity is present among variables. To make sure the model is not biased, appendix VIII shows the VIF test

[19] Variables representing the national cultural dimension values of target firms are not included in the models. However, they are included in the correlation matrix as it could be valuable to see whether correlation between target is the same for acquirer firms, as appears to be the case for UAI and PDI (further explanation in this paragraph).

[20] The main focus of this research lies in the individual relationship of each dimension with CARs. However, in chapter 4.4, robustness checks will be applied in which all dimensions are regressed together.

between all independent and control variables. All variables show values which are below the threshold of 10 used for this research, which follows Hair et al. (1995). Following Ringle et al. (2015) would as well meet the threshold they argue to be valid, as all values are below 5. Therefore, multicollinearity cannot bias the model and consequently influence results.

4.3 Hypothesis testing

Earlier stated hypotheses will be tested in this chapter. In 4.3.1, the individual effect of each national cultural dimension on CARs will be explained. Subchapter 4.3.2 will present regression results of national cultural differences between acquirer and target firm and the relationship with CARs. Both subchapters will elucidate results in which the dependent variable is the CARs five days around announcement (*CARF*). Chapter 4.4 will contain robustness test, to ensure or deny robustness of the models applied. This will contain regressions with other event windows (-1,+1 and -5,+5) and collective regression of all national cultural dimensions.

4.3.1 National cultural dimensions

This subchapter describes the main findings of all regression related to national culture of acquiring firm and CARs 5 day around announcement. Parentheses in the first row of the regression table below show numbers which are related to the hypothesize.

All national cultural dimensions are significant at 1% and therefore indicate strong evidence against the null hypothesis. Model 2a, 3a and 5a show signs which are in line with the hypotheses stated in chapter 2 of this research. The relationship between *UAI* and *CARF* (2a) exhibit the greatest negative effect, and between *PDI* and *CARF* (3a) the greatest positive effect is visible. As expected, countries with high *UAI* avoid unpredictable situations (risk avoidance) and, therefore, they tend to perceive investments riskier. This will result in more diversified and less risky investments: and general knowledge learns that risk is inherently connected to return. In contrast, *PDI* of acquirer shows a positive sign. Underlying reason is that firms in high *PDI* countries are able to make decisions more rapidly, which reduces costs throughout the entire M&A process: from M&A initiative until integration process. Furthermore, *IND* is positively related to *CARF* (5a). An explanation for *IND* being positive, but with a relatively small effect, could be that firms in individualistic countries tend to be risk-willing. However, investor (over)confidence and excessive risk taking could moderate the effect, because more risk tolerant could result in more

downside risk. The only dimension showing the opposite sign of what was expected, is the *MAS* dimension. It is highly significant, however, the effect is relatively small (-0.07) in relation to the other dimensions. A possible explanation for *MAS* manifesting the opposite sign could be overestimation of self-ability, which tend to be higher among more masculine cultures. This could have negative effects throughout the whole M&A process, because acquirer overestimates synergy potential and, respectively, the net present value of the M&A deal.

In each model, the control variables related to the method of payment (cash and shares) show the expected signs. When a CBM&A is fully financed with cash, it positively and significantly controls for *CARF*, due to the confidence it shows to shareholders. In contrast, when the method of payment is shares, it decreases shareholder value, and therefore, is negatively perceived by the market. Furthermore, the relative deal value (*logdealv*) and firm size (*logsize*) show highly significant signs which are in line with expected directions, respectively positive and negative. Another uniformly result is that, in line with expectations, serial acquiring firms (*saf*) are more experienced and therefore show higher CARFs. However, industry relatedness (*idr*) and the number of deals (*deals*) show signs which are in contrast with hypothesize stated. These puzzling results are not significant and could be perceived as less reliable.

	(2a) CARF	(3a) CARF	(4a) CARF	(5a) CARF
logUAI_a	-5.787***			
	-0.93			
logPDI_a		2.117***		
		-0.6		
MAS_a			-0.0715***	
			-0.01	
IND_a				0.324***
				-0.05
cash	0.597**	0.414	0.501*	0.445*
	-0.23	-0.3	-0.24	-0.23
shares	-0.477	-0.948**	-0.433	-0.615
	-0.7	-0.34	-0.65	-0.74
logdealv	0.670***	0.668***	0.695***	0.648***
	-0.12	-0.08	-0.12	-0.12

idr	-0.204	-0.416	-0.29	0.00113
	-0.48	-0.5	-0.57	-0.36
foa	0.0942	-0.0285	-0.0659	-0.00343
	-0.32	-0.25	-0.31	-0.35
logsize	-0.753***	-0.839***	-0.824***	-0.779***
	-0.17	-0.11	-0.18	-0.18
saf	0.532	0.503	0.409	0.533
	-0.45	-0.43	-0.43	-0.48
deals	-0.0828	-0.0838	-0.059	-0.0609
	-0.2	-0.15	-0.2	-0.21
_cons	27.45***	1.709	9.369***	-14.65***
	-4.49	-2.36	-2.74	-3.61
N	694	637	694	701
R^2	0.141	0.177	0.143	0.126
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

TABLE 2: REGRESSION RESULTS NATIONAL CULTURAL DIMENSIONS WITH COUNTRY AND YEAR FIXED EFFECTS

This table reports results for the national cultural dimensions of acquirer in relation to cumulative abnormal returns five days around the announcement of CB&MA. Robust standard errors in parentheses, clustered at country-level and year fixed effects *0.10, ** p < 0.05, *** p < 0.01.

Appendix IX show regression results in which these fixed effects are not included. The most interesting difference is the R-squared, measure of the goodness of fit of a model, which is almost 3 times lower in each model without country and year FE. This could indicate that country and year FE properly control for omitted constant variables in the model. Furthermore, nearly all effects appear to be less impactful (less positive and less negative) and slightly less significant.

4.3.2 National cultural differences

This subchapter describes the main findings of all regression related to the distance in national culture between acquiring and target firm. Each model contains an interaction term between cultural distance and the number of deals announced and finish within the sample period. Parentheses in the first row of the regression table below show numbers which are related to the hypothesize.

Regression 1 shows the relationship between *CARF* and cumulative cultural distance. This model show results which are in line with expected signs; a negative relationship between cumulative cultural distance (*diff_total*) and *CARF*. The same applies for model 2b and 3b, which are negatively related to CARFs. In line with the hypothesize 2b, which is based on papers of Hofstede (2011), Kogut and Singh (1988), and Shenkar (2001), high uncertainty avoidance differences show the strongest negative significant relationship with CARs. The foremost reason for UAI differences having the strongest relationship is related to dissimilar attitude of acquirer and target firm regarding formalization and risk. Nevertheless, model 4b and 5b show results which are contrasting with the hypothesized sign. The difference between acquiring and target form on the masculinity index (*diff_MAS*) was expected to be positively related to *CARF*. The underlying explanation is that firms in more masculine countries tend to reduce integration and synergy cost, because they are more resolute and decisive, which accelerate the whole CBM&A process. They are more compelling, growth driven, competitive and therefore expected to stimulate firms in less masculine countries. However, both models 4b and 5b show insignificant and unexpected results. The interaction terms are included in each model, because it is hypothesized that the relationship between acquirer and target's national cultural differences and CARs is tempered when acquiring firms have already conducted CBM&A deals (experience). The only significant interaction term is visible between *IND* and the number of *deals*: 0.03 at 1%, which means that the more deals are done, the more positive the effect of difference between acquirer and target *IND* on performance will be. This effect appears to be the same for all individual dimensions (2b until 5b), with exception of the cumulative cultural distance (1).

In each model, the control variables related to the method of payment (cash and shares) show the expected signs. When a CBM&A is fully financed with cash, it positively and significantly controls for *CARF*, due to the confidence it shows to shareholders. In contrast, when the method of payment is shares, it decreases shareholder value, and therefore, is negatively perceived by the market. Furthermore, the relative deal value (*logdealv*) and firm size (*logsize*) show highly significant signs which are in line with expected directions, respectively positive and negative. Another uniformly result is that, in line with expectations, serial acquiring firms (*saf*) are more experienced and therefore show higher CARFs. However, industry relatedness (*idr*) and the number of deals (*deals*) show signs which are in contrast with hypothesize stated. These puzzling results are not significant and could be perceived as less reliable.

	(1)	(2b)	(3b)	(4b)	(5b)
	CARF	CARF	CARF	CARF	CARF
diff_total	-0.0369				
	-0.02				
CDdeals	-0.00584				
	(0.01)				
diff_UAI		-0.0231*			
		-0.01			
UAIdeals		0.00198			
		-0.01			
diff_PDI			-0.0205		
			-0.01		
PDIdeals			0.000352		
			-0.01		
diff_MAS				-0.000261	
				-0.01	
MASdeals				0.00497	
				0	
diff_IND					-0.0215
					-0.02
INDdeals					0.0302***
					-0.01
cash	0.432*	0.472	0.540**	0.534**	0.530**
	-0.23	-0.28	-0.21	-0.25	-0.23
shares	-0.547	-0.513	-0.402	-0.431	-0.672
	-0.67	-0.69	-0.69	-0.7	-0.71
logdealv	0.637***	0.631***	0.674***	0.693***	0.615***
	-0.1	-0.12	-0.12	-0.13	-0.1
idr	-0.00515	-0.224	-0.034	-0.155	-0.0759
	-0.36	-0.4	-0.37	-0.46	-0.36
foa	-0.0712	0.0448	0.0649	0.00198	0.0642
	-0.32	-0.38	-0.41	-0.36	-0.38
logsize	-0.751***	-0.747***	-0.789***	-0.811***	-0.737***
	-0.13	-0.14	-0.16	-0.18	-0.15
saf	0.581	0.498	0.476	0.635	0.597
	-0.5	-0.46	-0.46	-0.48	-0.47
deals	-0.0484	-0.0589	-0.071	-0.11	-0.086
	-0.21	-0.17	-0.19	-0.18	-0.13
_cons	3.491	3.268	3.994	3.48	3.444
	-2.13	-2.18	-2.49	-2.33	-2.18
Obs.	694	695	698	697	697
R^2	0.12	0.124	0.127	0.139	0.132
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

TABLE 3: REGRESSION RESULTS NATIONAL CULTURAL DIFFERENCES WITH COUNTRY AND YEAR FIXED EFFECTS

This table reports results for the national cultural differences between acquirer and target, cumulative effect of cultural distance (1) as well as the isolated relationship (2b until 5b), interaction terms included. Robust standard errors in parentheses, clustered at country-level *0.10, ** p < 0.05, *** p < 0.01

The table above show results in which country and year fixed effects[21] are included in each model. Appendix X show regression results in which these fixed effects are not included. The most interesting difference is the R-squared, measure of the goodness of fit of a model, which is almost 3 times lower in each model without country and year FE. This could indicate that country and year FE properly control for omitted constant variables in the model. Furthermore, nearly all effects appear to be less impactful (less positive and less negative). However, the relationship between CARF and differences in PDI, MAS and IND are more significant in the model without FE.

The R-squared of approximately 0.15 in all models could be perceived as problematic, as it indicates that the independent variables do not explain much in the variation of the dependent variable. However, this R-squared should be set in perspective, as other comparable papers exhibit approximately same values (Frijns et al, 2013; main focus on UAI dimension, R^2 of ~0.03. Ahern et al, 2015; main focus on IND dimensions, R^2 of ~0.16. Chakrabarti et al., 2009; cultural distance and CBM&A, R^2 0.06-0.20 range).

4.4 Robustness test

To ensure robustness of the models applied in previous subchapters, several test will be applied. All regressions related to this chapter can be found in appendix XI.

Firstly, to check whether the event window is an important determinant for the relationship with national cultural, two new dependent variable will be introduced: *CART* and *CARE*. Instead of a five day period around announcement, these variables will have an event window of respectively three (*CART*) and eleven days (*CARE*) [22]. Table 18 and 20 show all results in which *CART* is the dependent variable, with table 18 representing the 'a' part of the hypotheses (relation with acquirer national cultural values) and table 20 showing the 'b' part (relation with national cultural differences). Table 19 and 21 show regression results with *CARE* as dependent variable[23].

[21] Substantiation for the usage of country and year FE can be found in subchapter 3.4.

[22] Only results which are worth mentioning will be explained.

[23] The same applies for table 19 and 21 regarding the 'a' and 'b' part of the hypotheses (see previous sentence).

Generally, regression results of table 18 until 21 show a R-squared which is slightly lower then in the regular model. An interesting result is the significance of control variable *saf* in the *CART* models (table 18 and 20), which indicate that serial acquiring firms are significant and positively related to CARs three day around announcement of CBM&A. Rationale behind this could be that, 1 day before and 1 day after announcement, several 'easily' observable key indicators (such as serial acquirer targets) are taken into account when investors/shareholders consider the CBM&A as profitable. The longer the event window, the less significant and less positive the control variables relates itself to the dependent variable: investors/shareholders have other determinant for investment-willingness and the experience of acquirer firm tends to become less important.

Secondly, although this research distinguishes itself by examining the individual relationship between Hofstede's dimensions and CARs, a pooled regression should also be considered. Main consideration for this pooled model is the environment in which economies operate: there is never only 1 culture which determines the cultural values of a country. Therefore, the pooled model could explain whether the same relationships hold if other cultural dimensions are incorporated in the regression. Table 22 shows a pooled regression with all national cultural differences between acquirer and target firm in relation to CARs five day around announcement of CBM&A. Models 7a and 7b both include interaction terms, however, respectively without and with country and year fixed effects. The most interesting result is the opposite sign *diff_IND* and *diff_UAI* show when country and year FE are included in the model (7). Overall, the model with country and year fixed effects and with interaction terms show most reliable results, based on its R-squared. Furthermore, all control variables show signs which are the same as in the regular model, with some having a stronger effect (e.g. *cash, shares, logsize*). Table 23 shows a pooled regression model with all acquirer cultural dimension values in relation to CARs five day around announcement of CBM&A. Overall, the main differences in comparison to the individual regressions are the decreased size of the effect (e.g. *logUAI_a* -3.23 vs -.5.79), insignificance of *logPDI_a* and a less significant variable *IND_a*. In addition, the latter has changed from a 1% significant positive relation (0.324) to a 10% significance negative relation (-0.0306). An explanation for this, relatively small, negative association could be that cultural dimensions are correlated with each other, which could moderate the individual effect of this dimension (same applies for the other dimensions). However, all control variable seem to hold the same effect as in previous robustness test and the regular models.

Therefore, results in chapter 4.3 can be perceived as relatively more reliable, due to continuing results in a different scientific environment.

5 Discussion and conclusion

This study examined the relationship between two concepts which are not commonly unified: national culture and the performance of cross-border mergers and acquisitions. National culture is quantified with assistance of Hofstede's dimensions and CARs around announcement are used as proxy for CBM&A performance. Although this specific research area has several eminent papers, there is still a lack of consensus among researchers. Furthermore, the individual effect of each dimension has not/barely been researched yet. Therefore, the aim of this research is to contribute to the consensus-debate, while opening new doors to examine the individual relationship of demarcated aspects of national cultural values within a country.

Firstly, this research indicates that a relationship between national culture and CARs does exist. All national cultural dimensions value are significantly associated with CBM&A performance. The sign of variables UAI, PDI and IND of acquiring firm are in line with the expectations, respectively negative, positive and positive. As expected UAI, has the greatest effect on CARs, which in line with research done by Hofstede, Kogut and Singh (1988), and Shenkar (2001). Secondly, the national cultural differences show results which are not convincing and cannot be perceived as valuable. They are not significant, show barely any effect and are not in line with what had been expected. Lastly, the event window of CARs does not influence the regression results with great persuasion. Control variables show equal sings in nearly all models, which strengthen the applicability and correctly phrased hypotheses in the main models.

From a practical perspective these results could be valuable for determining whether a CBM&A deal is appealing. As economies are interweaving and the world is globalizing, culture is getting increasingly important, as well within and between companies. It seems like companies already take into account cultural similarities, due to the amount of deals between cultural comparable countries such as Great-Britain, The Netherlands and Sweden. However, the practical implications should not be focused necessarily on whether to engage in a deal or not. The key takeaway for investors/shareholders is to incorporate eventual synergy and integrational costs on short- as well as long term.

A possible limitation is the credibility of Hofstede's dimensions, which has been criticized extensively by Blodgett et al (2008), Signorini et al (2009) and McSweeney (2002). They argue that his model has some empirical and theoretical limitations[24]. Another possible problematic factor in this research could be minor deviation on each national cultural dimension score. Although descriptive statistics in chapter 4.1 show relatively high standard deviation and great differences between minimum and maximum values on national cultural dimensions, this should be set in perspective: majority of the CBM&A deals in the sample set had been performed by minority of all countries involved[25]. In addition, this minority are mostly countries with minor deviation in culture (for example Great-Britain and Sweden). This could indicate that firms already take into account possible cultural differences when entering foreign markets. Furthermore, an explanation for ambiguous results of control variable 'deals', could be related to its definition in this research: amount of deals X, has been taken over the total sample period 01/01/2009 until 31/12/2019, while company Y in its first year of the sample period could have X-1 deal. This could lead to an overestimation of acquirer experience at the beginning of the sample set. A more appropriate application of this control variable in further research would be: amount of deals in X years before the sample period.

Further research might change the data set from only European firms to companies all over the world, including Asia, Africa etc. As mentioned in previous paragraph, firms in European countries have small deviation in their cultural values. When the data set exhibit countries with a wider range of cultural values, each dimension may explain a greater and more significant part of the relation between national culture and performance of CBM&A. Furthermore, it could be interesting to test whether other quantification of cultural values, such as the 'Globe Model' or 'Schwartz model', exhibit comparable results. In addition, further research should also include sociological and psychological elements. An example could be a proxy for investor and/or CEO behavior, which could moderate the effect of certain variables, such as the individualism score of a country (e.g. investor (over)confidence and excessive risk taking).

[24] For further details regarding their criticisms, see their research papers: Blodgett et al (2008), Signorini et al (2009) and McSweeney (2002).

[25] For example: Great-Britain and Sweden (and vice versa), Great-Britain and Netherlands, Great-Britain and Germany (and vice versa) Sweden and Norway (and vice versa) together already consists of approximately 25%

Bibliography

Ahern, R. K., Daminelli, D., & Fracassi, C. (2015). Lost in translation? The effect of cultural values on mergers around the world. *Journal of Financial Economics, 117*, 165-189.

Bakher, R. Z. (2018). How do each dimension of Hofstede's national culture separately influence M&A success in cross-border M&As? *Transnational Corporations Review, 10*, 131-146.

Bazel-Shoham, O., Lee, S. M., Rivera, M. J., & Shoham, A. (2020). mpact of the female board members and gaps in linguistic gender marking on cross-border M&A. *Journal of World Business, 55*, 2-18.

Boateng, A., Du, M., Bi, X., & Lodorfos, G. (2019). Cultural distance and value creation of cross-border M&A: The moderating role of acquirer characteristics. *International Review of Financial Analysis, 63*, 285-295.

Bochner, S. (1994). Cross-cultural differences in the self-concept: A test of Hofstede's individualism/collectivism distinction. *Journal of Cross-Cultural Psychology, 25*(2), 273-283.

Brock, D. M. (2005). Multinational acquisition integration: the role of national culture in creating synergies. *International Business Review, 14*, 269-288.

Buono, A., & Bowditch, J. (1989). *The Human Side of Mergers and Acquisitions: Managing Collisions Between People, Cultures and Organizations.* Washington, DC: Jossey-Bass.

Cartwright, S. (2001). Executive Perceptions in Foreign and Domestic Acquisitions: An Analysis of Foreign Ownership and Its Effect on Executive Fate. *Journal of World Business, 36*, 85-105.

Cartwright, S., & Cooper, C. L. (1993). The role of culture compatibility in succesful organizational marriage. *Academy of Management Executive, 40*, 216-236.

Chakrabarti, R., Gupta-Mukherjee, S., & Jayaraman, N. (2009). Culture and cross-border M&A. *Journal of International Business Studies, 40*, 216-237.

Chakraborty, S. (2006). Bank-based versus market-based financial systems: A growth-theoretic analysis. *Journal of Monetary Economics*(53), 329-350.

Chan, A. W., & Cheung, H. Y. (2016). Extraversion, individualism and M&A activities. *International Business Review, 25*, 356-369.

Chatterjee, S., Lubatkin, M. H., Schweiger, D. M., & Weber, Y. (1992). Cultural differences and shareholder value in related mergers: linking equity and human capital. *Strategic Management Journal, 13*, 319-334.

Chen, C. C., Peng, M. W., & Saparito, P. A. (2002). Individualism, Collectivism, and Opportunism: A Cultural Perspective on Transaction Cost Economics. *Journal of Management, 28*, 567-583.

Chui, A., Titman, S., & Wei, J. (2010). Individualism and momentum around the world,. *Journal of Finance, 65*, 361-392.

Clarke, T., & Brink, A. (2011). *Corporate Governance and Business Ethics.* Den Haag: Springer Netherlands.

Cosma, S., Leopizzi, R., Nobile, L., & Schwizer, P. (2021). Revising the Non-Financial Reporting Directive and the role of board of directors: a lost opportunity? *Journal of Applied Accounting Research*(47), 1-47.

Davis, J. B. (2008). The Turn in Recent Economics and Return of Orthodoxy. *Cambridge Journal of Economics*(32), 349–366.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective Well-Being: Three Decades of Progress. *Psychological Bulletin*(125), 276-302.

Erel, I., Liao, R. C., & Weisbach, M. S. (2012). Determinants of Cross-Border Mergers and Acquisitions. *The Journal of Finance, 67*, 1045-1082.

Fenech, A., Foster, J., Hamilton, K., & Hansell, R. (2003). Natural Capital in Ecology and Economics: An Overview. *Environmental Monitoring and Assessment*(86), 3-17.

Frijns, B., Gilbert, A., Lehnert, T., & Tourani-Rad, A. (2013). Uncertainty avoidance, risk tolerance and corporate takeover decisions. *Journal of Banking & Finance, 37*, 2457-2471.

Gertner, R. H., Scharfstein, D. S., & Stein, J. C. (1994). Internal versus external capital markets. *Quarterly Journal of Economics*(109), 1211-1230.

Hall, B., & Murphy, K. (2002). Stock options for underdivsersified executives. *Journal of Accounting and Economics, 37*, 3-42.

Hofstede, G. (1980). Motivation, Leadership, and Organization: Do American Theories Apply Abroad? *Organizational Dynamics, 9*, 42-63.

Hofstede-insights. (2010). *Country Comparison | Hofstede's Cultural Dimensions.* Finland.

Khatri, N. (2009). Consequences of Power Distance Orientation in Organisations. *The Journal of Business Perspective, 13*, 1-9.

Koerniadi, H., Krishnamurti, C., & Tourani-Rad, A. (2015). Cross-border mergers and acquisitions and default risk. *International Review of Financial Analysis, 42*, 336-348.

Lawson, T. (2008). *Ontology and Economics* (Vol. The nature of heterodox economics). Oxfordshire: Routledge.

Licht, A., Goldschmidt, C., & Schwartz, S. (2005). Culture, law and corporate governance. *International Review of Law and Economics, 25*, 229-255.

Mateja, J. (2007, May 15). How Chrysler marriage failed. *Chicago Tribune*, p. 1.

May, D. (1995). Do managerial motives influence firm risk reduction strategies? *Journal of Finance, 50*, 1291-1308.

McCloskey, N. D. (2016). Max U versus Humanomics: a critique of. *Journal of Institutional Economics*(12), 1-27.

Morosini, P., Shane, S., & Singh, H. (1998). National cultural distance and cross-border acquisition performance. *Journal of International Business Studies, 29*, 137-156.

Naseem, A. M., Riaz, S., U., R. R., Ikram, A., & Malik, F. (2017). Impact Of Board Characteristics On Corporate Social Responsibility Disclosure. *Journal of Applied Business Research*(33), 17-51.

Porter, M. E. (1987). From competitive advantage to corporate strategy. *Harvard Business Review, 65*, 43-59.

Robbins, S. P. (2011). *Principles of Management.* Boston: Pearson Learning Solutions.

Shao, L., Kwok, C. C., & Guedhami, O. (2010). National culture and dividend policy. *Journal of International Business Studies, 41*, 1391-1414.

Shenkar, O., & Zeira, Y. (1992). Role Conflict and Role Ambiguity of Chief Executive Officers in International Joint Ventures. *Journal of International Business Studies, 23*, 55-75.

Shimizua, K., Hitt, M. A., Vaidyanath, D., & Pisano, V. (2004). Theoretical foundations of cross-border mergers and acquisitions: A review of current research and recommendations for the future. *Journal of International Management, 10*, 307-353.

Siegel, J., Licht, A., & Schwartz, S. (2011). Egalitarianism and international investment. *Journal of Financial Economics, 102*, 621-642.

Smith, V. L. (1976). Experimental Economics: Induced Value Theory. *The American Economic Review*(2), 274-279.

Steigner, T., & Sutton, N. K. (2011). How Does National Culture Impact Internalization Benefits in Cross-Border Merger and Acquisitions? *The Financial Reiew, 46*, 103-125.

Tienari, J., Lund, R., & Koveshnikov, A. (2015). Why is gender not debated in M&A? *Advances in Mergers and Acquisitions, 14*, 17-32.

Weber, Y. (1996). Corporate cultural fit and performance in merger and acquisitions. *Human Relations, 49*, 1181-1202.

Appendices

Appendix I

An overview of all hypotheses and the empirically manifested relationships can be found below:

#	**Hypothesize**	**Expect -ed sign**	**Actual sign**
1	There is a negative relationship between acquirer and target firm cumulative cultural distance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	-	-
2a	There is a negative relationship between acquirer's uncertainty avoidance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	-	-
2b	There is a negative relationship between acquirer and target firm absolute distance in uncertainty avoidance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	-	-
3a	There is a positive relationship between acquirer's power distance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	+	+
3b	There is a negative relationship between acquirer and target firm absolute distance in power distance and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	-	-
4a	There is a positive relationship between acquirer's masculinity and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	+	-
4b	There is a positive relationship between acquirer and target firm distance in masculinity and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	+	-
5a	There is a positive relationship between acquirer's individualism and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	+	+
5b	H5b. There is a negative relationship between acquirer and target firm absolute distance in individualism and cumulative abnormal returns over a five-day period around the announcement of CBM&A.	-	-

TABLE 4: HYPOTHESIZE OVERVIEW

Appendix II

An overview of all variables can be found in the table below:

#	Dependent Variables	Source	Measurement
CARF	Cumulative Abnormal Return Five day period	Eikon	With -2 and +2 days around the announcement date
CARE	Cumulative Abnormal Return Eleven day period	Eikon	With -5 and +5 days around the announcement date
CART	Cumulative Abnormal Return Three day period	Eikon	With -1 and +1 day around the announcement date
#	**Independent Variables**	**Source**	**Measurement**
PDI	Power Distance	Hofstede insights	Absolute value
diff_PDI	Difference in Power Distance between acquiring and target country	Hofstede insights	Absolute value
IND	Individualism	Hofstede insights	Absolute value
diff_IND	Difference in Individualism between acquiring and target country	Hofstede insights	Absolute value
MAS	Masculinity	Hofstede insights	Absolute value
diff_IND	Difference in Masculinity between acquiring and target country	Hofstede insights	Relative value
UAI	Uncertainty Avoidance	Hofstede insights	Absolute value
diff_UAI	Difference in Uncertainty Avoidance between acquiring and target country	Hofstede insights	Absolute value
diff_total	Cumulative national cultural difference between acquiring and target country	Hofstede insights	Absolute value, index according Kogut and Singh (1988)
#	**Control Variables**	**Source**	**Measurement**
LogFS	Relative Firm Size (firm-level)	Eikon	Natural logarithm of the total assets of acquiring firm

SAF	Serial Acquiring Firm (firm-level)	Zephyr	Dummy variable: more than 1 acquired = 1, otherwise = 0
LogDV	Relative Deal Value (deal-level)	Zephyr	Natural logarithm of deal size
FOA	Full Ownership of Acquirer (deal-level)	Zephyr	Dummy variable: 100% acquisition =1, otherwise = 0
CASH	Cash method of payment (deal-level)	Zephyr	Dummy variable: Cash method of payment = 1, otherwise = 0
SHARES	Shares method of payment (deal-level)	Zephyr	Dummy variable: shares method of payment = 1, otherwise = 0
IDR	Industry relatedness (industry level)	Zephyr	Dummy variable: same industry = 1, different industry = 0
#	**Moderating Variables**	**Source**	**Measurement**
PDIdeals	diff_PDI * deals	Stata	Absolute value
INDdeals	diff_IND * deals	Stata	Absolute value
MASdeals	diff_MAS * deals	Stata	Absolute value
UAIdeals	diff_UAI * deals	Stata	Absolute value
CDdeals	diff_total * deals	Stata	Absolute value

TABLE 5: VARIABLE OVERVIEW

Appendix III

An overview of all steps taken from beginning to to the final amount of deals.

Step taken	Results after criteria
1. Deal type: Acquisition, Merger	**834,346**
2. Time period: on and after 01/01/2009 and up to and including 31/12/2019 (completed-confirmed, announced)	**387,524**
3. All cross border deals by country	**80,286**
4. World regions: European Union, Western Europe, Eastern Europe (Acquiror AND Target)	**20,246**
5. Methods of payment: Cash, Cash assumed, Cash Reserves, Liabilities, Shares, Business assets, Converted Debt, Deferred payment, Dividend, Bonds, Services, Third party shares	**3,652**
6. Listed/Unlisted/Delisted companies: listed acquiror	**1,613**
Boolean search : 1 And 2 And 3 And 4 And 5 And 6	
# Clean data steps:	
1) Removed unknown Acquiror ISINs	1,590
2) Removed:	
Kazachstan	
Turkey	
VG eiland etc. (shell)	1,553
3) Removed commercial banks	1,479
4) Removed uncompleted deals	1,146
5) Removed deal value n/a	1,023
6) Removed following countries due to inavailability of Hofstedes cultural scores	
Cyprus	
Gibraltar	
Kosovo	
Liechtenstein	
Andorra	980
7) Removed deals that are not completed and announced between 2009 and 2019	901
8) Remove deals without information about CARs (no index return and/or stock return available) and without information about MV of total assets	850
9) Remove if acquirer and/or target has no Industry (SIC CODE) classification.	842
10) Remove if deal value is lower than 1million	792

TABLE 6: CLEAN DATA STEPS

Appendix IV

Tables below show information about the countries: amount of acquirer deals per country (table 10), most common CBM&A pairs (table 7), top 5 cultural differences between acquirer and target firm (table 8) and top 5 cultural similarities (table 9).

Country Code	Deals
GB	179
SE	125
FR	81
DE	55
IE	40
FI	39
CH	38
IT	33
NL	22
NO	22
BE	22
ES	21
DK	17
PL	12
LU	10
MT	8
PT	3
AT	3
HR	3
HU	2
CZ	1
IS	1
LT	1
Total	738

TABLE 10: ACQUIRING DEALS PER COUNTRY

Acquirer	Target	Number of deals
SE	GB	26
GB	NL	24
GB	DE	23
GB	SE	21
SE	NO	20

TABLE 7: TOP 5 COMMON CBM&A PAIRS

Acquirer	Target	Difference
BE	DK	157
SE	BE	-152
DK	IT	-140
DK	FR	-137
SE	IT	-135

TABLE 8: TOP 5 CULTURAL DIFFERENCES

Acquirer	Target	Cultural differences
LT	LV	0
FR	IT	-3
CH	DE	-3
FI	NL	-4
GB	CH	-5

TABLE 9: TOP 5 CULTURAL SIMILARITIES

Appendix V

Country Code	AT	BA	BE	BG	CH	CZ	DE	DK	ES	FI	FR	GB	GR	HR	HU
AT			1				1				1				
BE							2	1			7	3	2		
CH	1		1				9	1	2	1	6	7	2		
DE	5		2		9			1	5		6	14			
DK							1			1	2	4	1		
ES					1	`	3				3	3			
FI			1		1		3	4			3	4			
FR	2		7		3		3	2	12	1		15	1		
GB	2		9		14		3	5	**21**	3	15				1
HR		1									1				
IE	1		2				4		2		4	18			
IT					3		12		6		2	6			
LU					1		1				1	4			
MT							1	1			1	3			
NL			1		1		9	1			1	4			
NO							2			2		4			
PL		1		1		1			1					2	
PT									3						
SE	1		2		1		14	12	1	14	9	**26**			

TABLE 11: CBM&A PAIRS PER COUNTRY (1/2)

Country Code	IE	IS	IT	LT	LU	LV	MT	NL	NO	PT	RO	SE	SI	SK
BE			3		1			3						
CH			1		2			2				3		
CZ														1
DE			3		3			4	1	1		1		
DK			1					2	2			3		
ES	1		5					3		2				
FI			2					2	6			10		
FR	1		13		3			9		1		3		
GB	**20**	1	18		4		2	**24**	8	1		8		
HR													1	
HU														2
IE			1					4				4		
IS												1		
IT								1	1			2		
LT						1								
LU			2					1						
MT												2		
NL	1		1						1			2		
NO	1		2		1							10		
PL				2		1					1			2
SE	1	2	4		2			16	20					

TABLE 12: CBM&A PAIRS PER COUNTRY (2/2)

Appendix VI

Breusch-Pagan / Cook-Weisberg test for Heteroskedasticity
H0: Constant variance
chi2(10) = 63.22
Prob > chi2 = 0.0000

TABLE 13: BREUSCH-PAGAN TEST FOR HETEROSCEDASTICITY

Appendix VII

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
(1) logPDI_a	1.000																										
(2) IND_a	-0.214*	1.000																									
(3) MAS_a	0.197*	0.292*	1.000																								
(4) logUAI_a	0.793*	-0.494*	0.300*	1.000																							
(5) PDI_t	0.181*	-0.050	0.190*	0.165*	1.000																						
(6) IND_t	-0.146*	-0.008	-0.121*	-0.096*	-0.364*	1.000																					
(7) MAS_t	0.131*	0.036	0.220*	0.153*	0.167*	0.032	1.000																				
(8) UAI_t	0.159*	0.055	0.205*	0.121*	0.748*	-0.572*	0.248*	1.000																			
(9) diff_PDI	0.236*	-0.060	0.133*	0.230*	0.433*	-0.153*	0.109*	0.327*	1.000																		
(10) diff_IND	0.072	0.173*	0.318*	-0.010	0.189*	-0.262*	0.252*	0.127*	0.067	1.000																	
(11) diff_MAS	0.057	0.209*	0.641*	0.124*	0.023	-0.123*	-0.608*	-0.028	0.023	0.061	1.000																
(12) diff_UAI	0.013	0.154*	0.021	-0.091	0.266*	-0.035	-0.016	0.210*	0.575*	0.168*	0.029	1.000															
(13) diff_total	-0.086	-0.050	-0.354*	-0.170*	0.047	0.144*	-0.185*	-0.059	0.355*	-0.202*	-0.143*	0.363*	1.000														
(14) PDIdeals	-0.056	0.044	0.036	-0.032	0.078	-0.008	0.029	0.093	-0.107*	-0.031	0.006	0.020	-0.017	1.000													
(15) INDdeals	0.018	0.069	0.128*	0.064	-0.026	0.029	0.061	0.009	-0.031	-0.055	0.057	-0.042	-0.045	0.016	1.000												
(16) MASdeals	0.028	0.019	0.028	0.023	0.006	0.001	0.075	-0.002	0.006	0.053	-0.036	-0.040	-0.049	-0.003	0.075	1.000											
(17) UAIdeals	-0.006	0.037	-0.009	-0.001	0.114*	-0.109*	0.037	0.179*	0.018	-0.035	-0.037	0.081	0.004	0.631*	0.047	-0.092	1.000										
(18) CDdeals	0.022	-0.028	-0.032	0.023	0.121*	-0.027	0.035	0.105*	-0.018	-0.045	-0.053	0.005	0.002	0.369*	-0.276*	-0.029	0.313*	1.000									
(19) cash	0.027	-0.026	-0.022	0.008	0.003	-0.016	-0.029	-0.003	-0.008	0.005	0.005	0.036	0.017	-0.046	-0.059	-0.026	-0.034	-0.046	1.000								
(20) shares	-0.016	-0.001	0.016	0.029	-0.005	-0.035	0.007	-0.013	-0.026	-0.018	0.007	-0.038	-0.020	0.013	0.014	0.004	-0.016	0.017	-0.465*	1.000							
(21) logdealv	0.117*	-0.146*	0.103*	0.207*	0.005	0.016	0.028	0.106*	0.050	-0.083	0.062	-0.048	-0.086	0.007	0.085	-0.018	-0.048	-0.050	-0.053	-0.013	1.000						
(22) idr	0.046	-0.027	0.030	0.064	0.052	-0.023	-0.036	0.037	0.013	-0.041	0.053	-0.021	-0.016	0.007	-0.051	0.006	0.020	0.020	0.018	0.056	-0.002	1.000					
(23) foa	-0.078	0.046	-0.023	-0.052	-0.157*	0.202*	-0.030	-0.132*	-0.039	-0.061	0.005	0.012	0.024	-0.015	0.046	0.007	-0.007	-0.032	-0.105*	0.014	0.013	-0.059	1.000				
(24) carf	-0.106*	-0.011	-0.141*	-0.123*	-0.038	0.015	-0.056	-0.041	-0.059	-0.088	-0.071	-0.035	0.026	0.022	0.042	0.056	0.021	-0.028	-0.017	0.089	-0.004	0.006	0.053	1.000			
(25) saf	-0.076	0.040	-0.075	-0.137*	0.018	-0.016	-0.010	0.010	-0.006	0.049	-0.053	0.075	0.067	-0.028	0.010	0.042	0.016	-0.014	0.030	-0.125*	-0.121*	-0.049	0.033	0.001	1.000		
(26) deals	-0.129*	0.082	-0.020	-0.208*	-0.029	0.035	-0.027	-0.020	-0.028	0.039	0.005	0.062	0.029	-0.112*	0.052	0.222*	-0.027	-0.088	0.048	-0.120*	-0.169*	-0.066	0.049	0.014	0.685*	1.000	
(27) logsize	0.071	-0.260*	-0.160*	0.082	0.048	-0.015	0.011	0.028	0.077	-0.085	-0.139*	-0.027	0.030	-0.016	-0.002	-0.043	-0.041	0.018	0.085	-0.262*	0.586*	-0.066	-0.119*	-0.133*	0.114*	0.021	1.000

**** p<0.01, ** p<0.05, * p<0.1*

TABLE 14: CORRELATION MATRIX ALL VARIABLES

Appendix VIII

Variable	VIF	1/VIF
MAS_a	3.14	0.319
deals	2.24	0.446
logsize	2.17	0.460
logUAI_a	2.17	0.461
saf	2.03	0.492
diff_PDI	2.03	0.493
IND_a	1.98	0.504
logdealv	1.92	0.521
PDIdeals	1.90	0.526
diff_MAS	1.88	0.533
diff_UAI	1.82	0.551
UAIdeals	1.80	0.557
diff_total	1.59	0.631
shares	1.43	0.699
CDdeals	1.33	0.754
cash	1.32	0.755
diff_IND	1.31	0.764
INDdeals	1.18	0.845
MASdeals	1.14	0.879
foa	1.06	0.940
idr	1.03	0.972
Mean	1.74	

TABLE 15: VARIANCE INFLATION FACTOR TEST OF ALL INDEPENDENT VARIABLES

Appendix IX

	(2a) CARF	(3a) CARF	(4a) CARF	(5a) CARF
logUAI_a	-1.659***			
	-0.45			
logPDI_a		-1.322***		
		-0.44		
MAS_a			-0.0409***	
			-0.01	
IND_a				-0.0272*
				-0.02
cash	0.581	0.369	0.392	0.364
	-0.39	-0.31	-0.38	-0.41
shares	-0.222	-0.729	-0.424	-0.414
	-0.61	-0.49	-0.62	-0.64
logdealv	0.469***	0.470***	0.597***	0.370***
	-0.11	-0.09	-0.11	-0.11
idr	-0.0495	-0.224	-0.171	0.0268
	-0.39	-0.31	-0.38	-0.4
foa	0.35	0.122	0.113	0.37
	-0.42	-0.35	-0.41	-0.43
logsize	-0.519***	-0.582***	-0.749***	-0.547***
	-0.1	-0.08	-0.11	-0.1
saf	0.518	0.378	0.24	0.546
	-0.48	-0.38	-0.48	-0.5
deals	-0.0325	0.0148	0.118	0.0578
	-0.12	-0.1	-0.12	-0.12
_cons	9.917***	9.529***	7.526***	6.896***
	-2.07	-1.91	-1.45	-2.12
N	694	637	694	701
R^2	0.062	0.091	0.085	0.041
Country FE	No	No	No	No
Year FE	No	No	No	No

TABLE 16: REGRESSION RESULTS NATIONAL CULTURAL DIMENSIONS WITHOUT COUNTRY AND YEAR FIXED EFFECTS

This table reports results for the acquirer's national cultural dimension values in relation to cumulative abnormal returns five days around the announcement of CB&MA. Robust standard errors in parentheses. *0.10, ** p < 0.05, *** p < 0.01.

Appendix X

	(1) CARF	(2b) CARF	(3b) CARF	(4b) CARF	(5b) CARF
diff_total	0.00864				
	-0.02				
CDdeals	-0.00325				
	-0.01				
diff_UAI		-0.0193*			
		-0.01			
UAIdeals		0.00159			
		0			
diff_PDI			-0.0281**		
			-0.01		
PDIdeals			-0.00108		
			-0.01		
diff_MAS				-0.0171***	
				-0.01	
MASdeals				0.00244	
				0	
diff_IND					-0.0508***
					-0.02
INDdeals					0.016
					-0.01
cash	0.374	0.435	0.488	0.492	0.45
	-0.39	-0.39	-0.41	-0.4	-0.39
shares	-0.261	-0.314	-0.182	-0.24	-0.542
	-0.62	-0.63	-0.64	-0.62	-0.63
logdealv	0.405***	0.395***	0.403***	0.457***	0.381***
	-0.11	-0.11	-0.11	-0.11	-0.11
idr	0.0798	-0.147	0.0138	0.00247	-0.0757
	-0.39	-0.39	-0.4	-0.4	-0.4
foa	0.204	0.408	0.441	0.295	0.394
	-0.43	-0.42	-0.42	-0.43	-0.42
logsize	-0.521***	-0.529***	-0.512***	-0.592***	-0.524***
	-0.1	-0.1	-0.1	-0.1	-0.1

saf	0.534	0.545	0.485	0.548	0.575
	-0.49	-0.5	-0.5	-0.5	-0.49
deals	0.0638	0.0381	0.0285	0.0541	0.0459
	-0.12	-0.12	-0.12	-0.13	-0.12
_cons	4.024***	4.874***	4.355***	4.568***	5.081***
	-1.41	-1.4	-1.41	-1.39	-1.46
N	694	695	698	697	697
R^2	0.043	0.048	0.046	0.055	0.055
Country FE	No	No	No	No	No
Year FE	No	No	No	No	No

TABLE 17: REGRESSION RESULTS NATIONAL CULTURAL DIFFERENCES WITHOUT COUNTRY AND YEAR FIXED EFFECTS

This table reports results for the national cultural differences between acquirer and target firm in relation to cumulative abnormal returns five days around the announcement of CB&MA. Robust standard errors in parentheses. *0.10, ** $p < 0.05$, *** $p < 0.01$.

Appendix XI

	(2a) CART	(3a) CART	(4a) CART	(5a) CART
logUAI_a	-3.306***			
	-0.67			
logPDI_a		2.758***		
		-0.6		
MAS_a			-0.0399***	
			-0.01	
IND_a				0.177***
				-0.04
cash	0.471	0.426	0.379	0.376
	-0.39	-0.4	-0.37	-0.41
shares	-0.526	-0.487	-0.572	-0.536
	-0.68	-0.69	-0.7	-0.7
logdealv	0.592***	0.559***	0.583***	0.578***
	-0.1	-0.1	-0.11	-0.11
idr	0.0741	0.0597	0.0251	0.0226
	-0.51	-0.52	-0.48	-0.51
foa	-0.0684	-0.0761	-0.19	-0.17
	-0.32	-0.32	-0.35	-0.34
logsize	-0.729***	-0.697***	-0.722***	-0.711***
	-0.16	-0.17	-0.17	-0.17
saf	0.649**	0.667**	0.573*	0.678**
	-0.26	-0.26	-0.3	-0.26
deals	-0.069	-0.0677	-0.00434	-0.0485
	-0.11	-0.11	-0.11	-0.11
_cons	19.22***	-1.526	8.464***	-4.499
	-4.06	-2.35	-2.56	-2.68
N	709	710	708	711
R2	0.125	0.118	0.121	0.119
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

TABLE 18: ROBUSTNESS TEST THREE DAY CARS RELATIONSHIP WITH ACQUIRER'S NATIONAL CULTURAL DIMENSION

This table reports results for the national cultural dimensions of acquirer in relation to cumulative abnormal returns three days around the announcement of CB&MA. Robust standard errors in parentheses, clustered at country-level and year fixed effects *0.10, ** p < 0.05, *** p < 0.01.

	(2a) CARE	(3a) CARE	(4a) CARE	(5a) CARE
logUAI_a	-4.296***			
	-0.67			
logPDI_a		3.844***		
		-0.6		
MAS_a			-0.0524***	
			-0.01	
IND_a				0.241***
				-0.04
cash	0.199	0.224	0.456	0.16
	-0.29	-0.28	-0.31	-0.3
shares	0.221	0.408	0.661	0.373
	-1.3	-1.24	-1.19	-1.29
logdealv	0.781***	0.795***	0.771***	0.783***
	-0.14	-0.14	-0.14	-0.14
idr	0.775	0.764	0.919	1.108*
	-0.72	-0.66	-0.74	-0.57
foa	-0.422*	-0.398*	-0.26	-0.279
	-0.21	-0.22	-0.34	-0.22
logsize	-0.545***	-0.560***	-0.530***	-0.525***
	-0.17	-0.18	-0.18	-0.16
saf	0.183	0.0133	0.366	0.238
	-0.42	-0.44	-0.45	-0.42
deals	0.26	0.287	0.237	0.262
	-0.2	-0.2	-0.22	-0.21
_cons	15.78***	-11.64***	0.827	-16.69***
	-5.39	-3.27	-3.83	-3.07
N	692	692	692	697
R^2	0.107	0.112	0.104	0.103
Country FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

TABLE 19: ROBUSTNESS TEST ELEVEN DAY CARS RELATIONSHIP WITH ACQUIRER'S NATIONAL CULTURAL DIMENSION

This table reports results for the national cultural dimensions of acquirer in relation to cumulative abnormal returns eleven days around the announcement of CB&MA. Robust standard errors in parentheses, clustered at country-level and year fixed effects *0.10, ** p < 0.05, *** p < 0.01.

	(1) CART	(2b) CART	(3b) CART	(4b) CART	(5b) CART
diff_total	-0.00438				
	-0.02				
CDdeals	-0.0132*				
	-0.01				
diff_UAI		-0.0265**			
		-0.01			
UAIdeals		0.001430			
diff_PDI			-0.0253**		
			-0.01		
PDIdeals			-0.00533		
			-0.01		
diff_MAS				0.00332	
				-0.01	
MASdeals				0.003250	
diff_IND					-0.0402**
					-0.01
INDdeals					0.0313**
					-0.01
cash	0.647*	0.571	0.414	0.332	0.421
	-0.32	-0.39	-0.36	-0.4	-0.33
shares	-0.242	-0.29	-0.419	-0.676	-0.623
	-0.53	-0.67	-0.68	-0.74	-0.65
logdealv	0.485***	0.555***	0.553***	0.563***	0.543***
	-0.08	-0.09	-0.1	-0.11	-0.11
idr	0.41	0.0891	0.0875	0.0937	0.127
	-0.47	-0.46	-0.46	-0.5	-0.4
foa	0.0938	-0.14	-0.287	-0.216	-0.33
	-0.26	-0.29	-0.32	-0.34	-0.3
logsize	-0.542***	-0.673***	-0.692***	-0.689***	-0.695***
	-0.11	-0.13	-0.15	-0.16	-0.17

saf	0.26	0.902***	0.811**	0.768**	0.736**
	-0.38	-0.3	-0.34	-0.35	-0.28
deals	-0.0511	-0.138	-0.0733	-0.124	-0.0686
	-0.13	-0.09	-0.11	-0.15	-0.08
_cons	3.648	5.464**	6.688**	5.449**	6.144**
	-2.15	-2.26	-2.39	-2.31	-2.27
N	637	705	704	708	707
R^2	0.128	0.126	0.118	0.117	0.138
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

TABLE 20: ROBUSTNESS TEST THREE DAY CARS RELATIONSHIP WITH NATIONAL CULTURAL DIFFERENCES

This table reports results for the national cultural differences between acquirer and target firm in relation to cumulative abnormal returns three days around the announcement of CB&MA. Robust standard errors in parentheses, clustered at country-level and year fixed effects *0.10, ** p < 0.05, *** p < 0.01.

	(1) CARE	(2b) CARE	(3b) CARE	(4b) CARE	(5b) CARE
diff_total	-0.0262				
	-0.03				
CDdeals	-0.00678				
	-0.03				
diff_UAI		-0.0294**			
		-0.01			
UAIdeals		0.0109			
		-0.01			
diff_PDI			-0.0141		
			-0.02		
PDIdeals			0.0126		
			-0.01		
diff_MAS				-0.0112	
				-0.01	
MASdeals				0.0100**	
				0	
diff_IND					0.0209
					-0.03
INDdeals					0.0284**
					-0.01

cash	0.325	0.325	0.314	0.301	0.41
	-0.31	-0.31	-0.32	-0.31	-0.33
shares	0.514	0.0985	0.435	0.647	0.158
	-1.31	-1.18	-1.22	-1.25	-1.25
logdealv	0.800***	0.728***	0.757***	0.772***	0.704***
	-0.14	-0.14	-0.14	-0.14	-0.13
idr	0.901*	0.652	0.929	1.228*	0.648
	-0.51	-0.68	-0.59	-0.68	-0.64
foa	-0.318	-0.438	-0.0778	-0.272	-0.547*
	-0.23	-0.28	-0.37	-0.24	-0.31
logsize	-0.568***	-0.517***	-0.518***	-0.491**	-0.540***
	-0.16	-0.17	-0.17	-0.19	-0.16
saf	0.395	0.452	0.476	0.503	0.583
	-0.45	-0.41	-0.44	-0.45	-0.43
deals	0.253	0.257	0.274	0.167	0.126
	-0.24	-0.18	-0.23	-0.15	-0.13
_cons	-2.793	-2.22	-2.418	-3.338	-1.836
	-3.42	-3.49	-4.04	-3.26	-2.98
N	692	693	693	691	688
R2	0.107	0.104	0.101	0.112	0.097
Country FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

TABLE 21: ROBUSTNESS TEST ELEVEN DAY CARS RELATIONSHIP WITH NATIONAL CULTURAL DIFFERENCES

This table reports results for the national cultural differences between acquirer and target firm in relation to cumulative abnormal returns eleven days around the announcement of CB&MA. Robust standard errors in parentheses, clustered at country-level and year fixed effects *0.10, ** p < 0.05, *** p < 0.01.

	(6a) No inter. term	(7a) With inter. term	(6b) No inter. term	(7b) With inter. term
diff_PDI	0.00684	0.0206	0.000146	0.0104
	(0.01)	(0.01)	(0.02)	(0.02)
diff_IND	-0.0269**	-0.0320**	0.0142	0.00837
	(0.01)	(0.01)	(0.02)	(0.02)
diff_MAS	-0.0121**	-0.00889	-0.00374	-0.00206
	(0.01)	(0.01)	(0.01)	(0.01)
diff_UAI	-0.0204*	-0.0288***	0.00284	-0.00249
	(0.01)	(0.01)	(0.02)	(0.02)
cash	0.506	0.567	0.511*	0.634**
	(0.39)	(0.38)	(0.23)	(0.21)
shares	-0.320	-0.364	-0.497	-0.528
	(0.61)	(0.61)	(0.63)	(0.63)
logdealv	0.476***	0.471***	0.704***	0.673***
	(0.11)	(0.11)	(0.12)	(0.09)
idr	-0.0361	-0.0296	-0.144	-0.101
	(0.39)	(0.39)	(0.51)	(0.46)
foa	0.340	0.435	0.151	0.178
	(0.43)	(0.42)	(0.39)	(0.40)
logsize	-0.577***	-0.555***	-0.761***	-0.721***
	(0.10)	(0.10)	(0.17)	(0.14)
saf	0.434	0.603	0.447	0.694
	(0.50)	(0.51)	(0.47)	(0.48)
deals	0.0535	-0.0673	-0.0379	-0.186
	(0.12)	(0.14)	(0.20)	(0.15)
PDIdeals		0.0312***		0.0256***
		(0.01)		(0.01)
INDdeals		-0.0105		-0.00546
		(0.01)		(0.01)
MASdeals		0.00446		0.00473*

		(0.00)		(0.00)
UAIdeals		-0.0147*		-0.0130+
		(0.01)		(0.01)
_cons	4.074**	3.769**	2.840	2.937
	(1.40)	(1.41)	(2.65)	(2.66)
Obs.	692	687	692	687
R^2	0.062	0.071	0.141	0.146
Country FE	No	No	Yes	Yes
Year FE	No	No	Yes	Yes

TABLE 22: REGRESSION RESULTS ALL CULTURAL DIFFERENCES TOGETHER

This table reports results for a pooled regression of all national cultural differences between acquirer and target firm in relation to cumulative abnormal returns five days around the announcement of CB&MA. Robust standard errors in parentheses, clustered at country-level and year fixed effects in models 'b', with interaction term in models '7' *0.10, ** p < 0.05, *** p < 0.01.

	(8a) CARF	(8b) CARF
logUAI_a	-1.991**	-3.233***
	-1.01	-0.41
logPDI_a	0.248	0.54
	-1.08	-0.71
MAS_a	-0.0251***	-0.0375***
	-0.01	-0.01
IND_a	-0.0495**	-0.0306*
	-0.02	-0.02
cash	0.399	0.489*
	-0.38	-0.22
shares	-0.378	-0.328
	-0.56	-0.67
logdealv	0.622***	0.682***
	-0.11	-0.13
idr	-0.063	-0.152
	-0.38	-0.51
foa	0.137	0.0237
	-0.45	-0.33
logsize	-0.738***	-0.770***
	-0.11	-0.17

saf	0.441	0.539
	-0.47	-0.44
deals	0.0394	-0.0583
	-0.15	-0.2
_cons	16.73***	19.48***
	-3.62	-3.46
N	690	690
R^2	0.095	0.143
Country FE	No	Yes
Year FE	No	Yes

TABLE 23: REGRESSION RESULTS ALL ACQUIRER CULTURAL DIMENSIONS TOGETHER

This table reports results for a pooled regression of all acquirer's national cultural dimension values in relation to cumulative abnormal returns five days around the announcement of CB&MA. Robust standard errors in parentheses, clustered at country-level and year fixed effects in model 'b' *0.10, ** p < 0.05, *** p < 0.01.

Appendix XII

Week	What?	Mandatory?	Type	Date
7	General planning for MT process	No	Personal deadline	Week
8	Feasibility check of needed data + Start on literature review	No	Personal deadline	Week
9	Work out literature review and introduction	No	Personal deadline	Week
10	Start methodology and describe initial data set	No	Personal deadline	Week
11	Further workout literature review and start gathering data already	No	Personal deadline	Week
12	First version research proposal draft	No	Personal deadline	Week
13	**Research proposal draft**	**Yes**	**Supervisor deadline**	**25-03-2022**
14	Process feedback	No	Personal deadline	Week
	Exams	No	Personal deadline	Week
15	**Definitive research proposal**	**Yes**	**Course deadline**	**08-04-2022**
16-21	Focus on regressions / output / Stata and finish literature review	No		
18	**MTH Supervision form**	**Yes**	**Course deadline**	**29-04-2022**
19	Meeting with supervisor about progression	No	Personal deadline	T.B.A.

22-23	Finish draft version and ask supervisor for improvements	No	Personal deadline	Week
24	Process feedback	No	Personal deadline	Week
25	**Definitive version Master Thesis**	**Yes**	**Course deadline**	**26-06-2022**

TABLE 24: THESIS PLANNING